

December 4, 1997

Ms. Jeanne Griffin
Early Action Project Manager
Emergency Response Branch
Region V Offices
Office of Superfund
U.S. Environmental Protection Agency
77 West Jackson
Chicago, Illinois 60604

Dear Ms. Griffin:

Please find enclosed copies of the CERCLA Integrated Assessment reports, Analytical results, Referral memorandums and PRESCORE worksheets, for the following sites which were scheduled for Fiscal 98 completions.

SITE NAME	ILD NUMBER	COUNTY	PRIORITY RANK
Rustoleum Corporation	094743571	Cook	Low

We are pleased to provide you with the attached reports. Should you have any questions or comments concerning this submission please feel free to contact me, or the authors of the specific report.

Thomas Crause

Sincerely.

Manager, CERCLA Site Assessment Programs

Division of Remediation Management

Illinois Environmental Protection Agency

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1. INTRODUCTION

On October 29, 1996 Illinois Environmental Protection Agency's (IL EPA) Site Assessment Program was tasked by the United States Environmental Protection Agency (USEPA) to conduct a CERCLA Integrated Assessment at the former Rustoleum Corporation site located in Evanston, Illinois. Rustoleum was initially placed on CERCLIS (Comprehensive Environmental Response, Compensation and Liability Act Information System) in October, 1993 as a site discovery. This discovery action was taken due to the historic use of the property as manufacturing facility for paints, coatings and resins by Rustoleum and prior to that as an Evanston dump.

In March of 1997, the IL EPA's Site Assessment Program prepared and submitted a work plan for Rustoleum to the Region V offices of the USEPA. The sampling portion of the Integrated Assessment was conducted on April 15 and 16, 1997 when the sampling team collected a total of five groundwater samples from the property.

The purpose of the Integrated Assessment has developed from USEPA directives and guidance information which outlines Site Assessment program strategies. The information stated in the directive can be seen in Appendix F. The Region V offices of the USEPA have requested that the IL EPA identify sites during the Integrated Assessment that may require removal action to remediate an immediate human health and/or environmental threat. IL EPA has determined that a removal action is not warranted at the former Rustoleum property at this time.

2. SITE BACKGROUND

2.1 SITE DESCRIPTION

The former Rustoleum property is located on approximately 20 acres of land at 2301 Oakton in Evanston, Illinois, in Cook County (see Figures 1 and 2). The property is bordered by Oakton Avenue to the south, Hartrey Avenue to the east, the Chicago and Northwestern railroad tracks to the west and a few small commercial/industrial shops to the north. Rustoleum is situated in an area containing both residential and commercial/industrial land uses. Immedietely to the east of the property are several businesses including Vogue Fabrics, Deslie's Auto Repair and Auto Top with Hartrey Avenue and then residential areas to the east of these. Just to the south of the site is Oakton Avenue and then the City of Evanston Recycling Center and the City of Evanston Animal Shelter and then James Park. Belmont Steel Corporation is located along Oakton just to the southwest of the site. Just to the west of the property are two businesses: Builders Ready Mix Concrete and Northshore Towing Scrapyard. To the north of the site are two businesses: Suburban Auto Wrecking Scrapyard and Liftomatic Material Handling. The property's specific location is described as the southwest quarter of Section 24, Township 41 North, Range 13 East in Cook County, Illinois.

When Rusoleum operated on the property their buildings occupied mainly the western half of the property. They had one main building and several smaller buildings in which they conducted their operations. The main building conducted shipping, receiving, warehouse and manufacturing operations while the smaller buildings were used for maintenance, resins manufacturing and as a boiler room. Other areas included a hazardous waste drum storage area,

an area where metal test racks were located and a parking lot. See Figure 10 for a general map of the former Rustoleum facility. In addition, a quarter acre in the northwest corner of the property was leased to a scrap metal recuperation firm and a two acre area on the eastern portion was leased to an automobile junkyard operator. Prior to selling the property to Home Depot, Rustoleum demolished all of their buildings and now nothing remains on the property indicating the former presence of Rustoleum. Currently the property is almost entirely covered by a Home Depot home improvement center and its asphalt parking lot. To see maps and aeiral photos of the site and its surroundings see Figures 1 through 7.

2.2 SITE HISTORY

Prior to Rustoleum's use of the property, the eastern portion of the property was used as a clay pit to obtain clay to be made into bricks. Historic records indicate that a brickyard operated on the property from around 1905 until 1940 during which a pit was formed measuring approximately forty feet in depth and 600 feet by 1000 feet in size. This pit extended off of the Rustoleum property to the northeast. During the time the area was an open pit, the City of Evanston used it as an area to dispose of non-combustible refuse. When Rustoleum conducted site investigations in this area prior to their sale of the property they found slag, cinders and other non-combustible fill materials.

Rustoleum operated on the property from around 1940 to 1990. Their facility occupied mainly the western portion of the property and manufactured paints, coatings and alkyd resins. During the summer and fall of 1990, Rustoleum's manufacturing building was demolished. In 1990, in

preparation for sale of the property, Rustoleum conducted an environmental assessment of the property along with conducting several underground storage tank removals, a RCRA closure for a drum storage area and removal of areas of contaminated soils. These investigations and remediation efforts are discussed in Section 2.4. Following this, Home Depot purchased the property and constructed a Home Depot home improvement center.

2.3 PREVIOUS INVESTIGATIONS

In order to prepare the property for sale, Rustoleum conducted a series of environmental site assessment and remedial activities in 1989, 1990 and 1991. These activities were undertaken independently without the oversite of the IL EPA. The following section will briefly describe these activities. For more detailed information, the reports on these activities are available in the IL EPA Bureau of Land files under the file number L0310810002.

1990 Tank Removals In December of 1989, Rustoleum authorized Heritage

Remediation/Engineering, Inc. to remove seven underground storage tanks (USTs) from the west side of the facility. Table 3 provides a summary of the USTs, the Rustoleum designation, compartment and total tank capacities, contents, and where applicable, prior contents. The removal of these tanks took place in January, 1990. The removal process included the removal of the tanks, removal of residual liquids in the tanks, cleaning, transportation, and disposal of the tanks. Following the removal of the tanks, limited soil sampling for volatiles and semi-volatiles was conducted at the bottom of the excavation pits which indicated the presence of xylenes, toluene, ethylbenzene and polynuclear aromatic hydrocarbons (PAHs). These soils were not

remediated at this time as Heritage recommended at more thorough site investigation instead.

O.H. Materials Corporation to perform a thorough environmental assessment of the property.

This work took place during January and February, 1990 and included the installation of 23 soil borings, the conversion of eight soil borings to monitoring wells, the collection and analysis of 26 soil boring samples, 16 surface soil samples, nine groundwater samples and five sediment (inside the buildings in drains and sumps) samples. In addition, the determination of groundwater elevation in each monitoring well was conducted to determine groundwater direction flow. The locations of the soil borings, surface soil samples and monitoring wells are shown on Figure 9. This sampling indicated that groundwater as well as certain areas of the soils had been impacted by site activities.

1991 Soil Remediation Based on the finding of areas of contaminated soils, Rustoleum hired Environmental Resources Management - North Central, Inc. (ERM) to oversee remediation efforts performed at the site in January and February, 1991. The remediation efforts consisted of the excavation and off-site disposal of 965 cubic yards of contaminated soils from the northeast, northwest and west portions of the property. The areas that were excavated were areas which either had visual contamination or which when screened with a photo ionization detector had headspace readings above 60 parts per million by volume. Following the excavation of soils, confirmatory soil samples were collected to determine whether further soil removal was warranted.

1991 Tank Removal In February, 1991, while working on demolishing the Rustoleum plant, another underground tank was discovered. This 12,000 gallon steel tank is thought to have been used for heating oil storage and was found to be filled with sand. This tank was excavated and disposed of.

2.4 APPLICABILITY OF OTHER STATUTES

Rustoleum was subject to the Resource Conservation and Recovery Act (RCRA), as it was considered a Full Quantity Generator and a Transporter. Rustoleum had a RCRA regulated drum storage pad located in the northeastern portion of the site which was 170 feet long by 60 feet wide and was used for the storage of hazardous wasted since 1976. This storage pad went through RCRA closure and was verified as closed on August 20, 1991.

3. INTEGRATED ASSESSMENT ACTIVITIES AND ANALYTICAL RESULTS

3.1 INTRODUCTION

This section outlines the procedures utilized and observations made during the CERCLA Integrated Assessment conducted at the former Rustoleum property. Specific portions of this section contain information pertaining to the reconnaissance inspection, site representative interviews, and field sampling procedures. Also included in this section is information about the groundwater samples that were collected during the Integrated Assessment and a description of the analytical results.

3.2 RECONNAISSANCE INSPECTION

On February 5, 1997, Mr. Peter Sorensen of the IL EPA conducted the initial CERCLA Integrated Assessment reconnaissance inspection of Rustoleum. The site reconnaissance included a visual inspection of the site to become familiar with the property, to identify potential sampling locations, and to survey the surrounding land use.

The reconnaissance revealed that the Rustoleum site is located on approximately twenty acres of land at 2301 Oakton in Evanston. The land use in the vicinity of the property is a mix of industrial, commercial and residential. The property is currently almost entirely covered by a Home Depot home improvement center and its parking lot. Two open areas, one grassy and the other with assorted construction debris and weeds, are located within the parking lot. The open grassy area is located to the south of the Home Depot building along Oakton Avenue. The other open area is located just to the southeast of the Home Depot building. Surrounding the parking lot is a narrow grassy strip with landscape trees and shrubs. Nothing remains on the property indicating that Rustoleum formerly occupied the site. To see maps and aerial photos of the site and its surroundings see Figures 1 through 7.

3.3 SITE REPRESENTATIVE INTERVIEW

In March and April, 1997 Mr. Peter Sorensen of the IL EPA held telephone conversations with representatives of Rustoleum and Home Depot. Discussions were held with Ms. Helen Reitz, an attorney for Rustoleum and with Mr. Jim Whatley and Mr. Ted Sandler of Home Depot. Mr. Jim Whatley is employed at Home Depot's Shaumburg office while Mr. Ted Sandler is an outside

council for Home Depot. The purpose of these discussions were to explain both the CERCLA Integrated Site Assessment process and the specifics concerning the sampling activities of the upcoming CERCLA sampling event. Rustoleum and Home Depot were asked if they wanted to split samples with IL EPA during the sampling event and both decided to do so. Rustoleum hired ERM-North Central, Inc. to be present at the sampling event and split samples while Home Depot was represented by GaiaTech Inc. Mr. Daniel Petersen and Mr. Dirk Kaiser represented ERM while Mr. John Yang represented GaiaTech.

3.4 SOIL SAMPLING

Due to the fact that the majority of the former Rustoleum property, including the entire area where the actual manufacturing buildings were located, is now covered by Home Depot, no soil samples were collected during the April, 1997 Integrated Assessment sampling event.

Groundwater samples were collected to help determine whether past site activities had impacted the groundwater.

3.5 GROUNDWATER SAMPLING

Five groundwater samples (including a duplicate at one location) were collected at four locations from the former Rustoleum property during the April 1997 CERCLA Integrated Assessment sampling event. It should be noted that a sixth groundwater sample location was attempted in front of the Home Depot building along Oakton Street but no groundwater was obtained with the Geoprobe. The groundwater samples were collected using a Geoprobe soil boring unit which was used to probe into the ground to the depth of groundwater and then a peristaltic pump and

plastic tubing were used to pump the water from the hole and fill the sample containers. Figure 8 shows the locations of the five groundwater samples and Appendix E provides photographs of the sample locations. The following table shows the approximate depth of groundwater below the ground surface, the approximate screening depth of the water sample, the location of each sample and any additional comments including PID and FID readings (in meter units) taken with the Total Vapor Analyzer (TVA) in the borehole.

	Groundwater Depth	Screening Depth	Sample Location	Comments
G101/ G102	10'	12'- 14'	210' S, 80' E of SE corner of Home Depot Building FID - 1200	
G103	12'	14'- 16'	80' N, 45' W of norhteast corner of Home Depot Building PID-no elevation FID - 525 Groundwate chemical odd	
G104	6'	12'- 14'	98' N, 45' E of southeast corner of Home Depot Building PID-no elevated FID - 10000 Groundwater chemical odor	
G105	4'	4'- 6'	60' W, 30' N of southwest corner of garden center at Home Depot Building	PID - no elevation FID - 215

3.6 DECONTAMINATION PROCEDURES

Standard IL EPA decontamination procedures were followed prior to the collection of all samples. The procedures included the scrubbing of all equipment with a non-foaming Trisodium Phosphate solution, rinsing with hot tap water and a final rinsing with distilled water. All equipment was air dried, then wrapped and stored in aluminum foil for transport to the field. These decontamination procedures, with the exception of the hot water rinse, were also used on

the Geoprobe boring equipment and groundwater screens in between sample locations.

3.7 ANALYTICAL RESULTS

This section includes a summary of the analytical results of samples collected during the CERCLA Integrated Assessment conducted at the former Rustoleum property. The five samples were analyzed for U.S. EPA Target Compound List compounds (see Appendix D) and a quality assurance review of the sample analysis was performed by Lockheed, Environmental Science Assistance Team Contractor for U.S. EPA Region V. A final quality assurance review of the data packages was subsequently performed by the staff of the Central Regional Laboratories of U.S. EPA Region V. The inorganics portion of the samples was analyzed by Southwest Labs of Oklahoma while the organics portion were analyzed by Clayton Laboratories. Figure 8 shows the specific sampling locations and Table 2 shows a summary of the sample results. Complete laboratory analytical data for the samples are provided in Appendix H of this report.

3.7.1 Groundwater Samples - The Illinois EPA's TACO guidance document under 35 IL Adm. Code Part 742 can be used to develop site specific remediation objectives. This document discusses key elements required to develop risk-based remediation objectives, how background values may be used, and provides guidance through three tiers of the risk-based approach. For a discussion of the TACO document refer to Appendix G. The Illinois EPA uses this guidance, and the groundwater standards established in 36 IL Adm. Code 620, to determine soil and groundwater remediation objectives.

After reviewing the geology, groundwater usage of the area, and *Groundwater Quality Standards*, groundwater beneath this site can be classified as Class II groundwater. The groundwater remediation objectives will be compared to Class II groundwater standards in 35 IL Adm. Code Part 620 or the groundwater objectives found in Illinois EPA's TACO document. Table 1 in Appendix B depicts those contaminants which exceed Class II groundwater objectives

Of the five groundwater samples collected at the site, four were found to exceed the IL EPA TACO groundwater remediation objectives for Class II groundwater for lead. The only groundwater sample that did not exceed these objectives for lead was G105 which was considered a background sample since it was collected along the western border of the property upgradient of the site. The TACO groundwater remediation objective for lead in Class II groundwater is 100 ug/L while the lead levels detected in groundwater samples G101 through G104 ranged from 244 ug/L to 866 ug/L (see Table 2).

Benzene was found to exceed TACO remediation objectives for Class II groundwater in sample G105 (the background sample), but not in any of the other samples. A potential source of the benzene is from the property just west of the Rustoleum property where a scrapyard is currently located. Approximately twenty feet north of where G105 was collected was an oil-stained area where it appeared that the grass had been killed by oil and gasoline which appeared to be coming from the scrapyard.

It should be noted that although the analytical results did not show the presence of other volatiles or semi-volatiles in the groundwater exceeding TACO remediation objectives, the groundwater collected from the G103 and G104 locations had a very strong chemical odor and had greatly elevated TVA readings. This could possibly be because the contaminants present in the groundwater may have not been analyzed for on the Target Compound List. Whatever the reason, it is important to mention that other contamination may be present in the groundwater that the analytical results do not indicate.

3.7.2 Key Samples

Key samples are samples in which contaminants were detected at levels three times or greater above background. Groundwater samples G103 and G104 were found to contain aluminum, barium, chromium, cobalt, copper, iron, lead and nickel at levels greater that three times

background. Samples G101 and G102 contained lead at levels greater than three times background. Table 4 shows the analytical results for the key samples.

4. IDENTIFICATION OF SOURCES

4.1_INTRODUCTION

This section will briefly discuss the hazardous waste source which has been identified in the initial stages of the CERCLA site investigation. It should be pointed out that the total number and nature of the sources at the site may change as the facility progresses through the CERCLA site assessment process and receives further investigation.

4.2 Below-Ground Tanks

As previously discussed in Section 2.3, several underground tanks were present on the former Rustoleum property. Based upon visual inspections and sampling conducted during their removal by contractors, it appears that the soils underneath and around several of the tanks had been impacted by either the leaking of the tanks or spills in the immediate vicinity of the tanks which most likely contributed to the contamination of groundwater. Following the removal of the tanks limited soil sampling for volatiles and semi-volatiles was conducted at the bottom of the excavation pits which indicated the presence of xylenes, toluene, ethylbenzene and polynuclear aromatic hydrocarbons (PAHs).

All of Rustoleum's known underground storage tanks were removed and disposed of by Rustoleum prior to their sale of the land. Table 3 provides a summary of the underground storage tanks, the Rustoleum designation, compartment and total tank capacities, contents, and where applicable, prior contents.

5. MIGRATION PATHWAYS

5.1 INTRODUCTION

The CERCLA Site Assessment Program identifies three migration pathways and one exposure pathway by which hazardous substances may pose a threat to human health and/or the environment. Consequently, sites are evaluated on their known or potential impact to these four pathways. The pathways evaluated are groundwater migration, surface water migration, air migration and soil exposure. The following section discusses these pathways and the site's impact or potential impact on them and on the various human and environmental targets. These targets include human populations, fisheries, endangered species, wetlands and other sensitive environments.

5.2 Groundwater Pathway

The geology of the Evanston generally consists of very thick deposits of silty clays on top of bedrock. The clays were deposited thousands of years ago in a quiet water lake environment when the area was covered by the glacial Lake Chicago. The underlying bedrock consists of layers of limestone, shale and dolomite which were formed in a marine environment. According to soil borings conducted in the Evanston area, soils in the area are generally around three feet in depth and are then followed by around eighty feet of various textured clays, which do not produce enough water to be utilized as an aquifer. As previously mentioned, following these clays is bedrock consisting of layers of limestone, shale and dolomite.

The former Rustoleum property contains two different types of surficial soils which lay on top of the natural thick clay layer. The northeastern portion of the site, where the excavation of clay was conducted (see Section 2.2), is characterized by various fill materials estimated by previous studies to be about forty feet in depth. The rest of the property is characterized by silty clay soils with areas of sand and gravel. It is believed that the groundwater samples which were collected during the 1997 IL EPA Integrated Assessment were obtained from a perched aquifer on top of

the relatively impermeable layer of clay which area borings indicate extends to eighty feet in depth.

The City of Evanston and the other cities in the vicinity of the former Rustoleum property utilize surface water from Lake Michigan for their municipal water supplies. Conversations with the City of Evanston's Public Works Director indicated that there was no private or industrial groundwater use in the Evanston area that they were aware of. IL EPA records do not indicate the presence of any drinking water wells within a four mile radius of the site.

Five groundwater samples (including a duplicate) were collected at the former Rustoleum property using a Geoprobe soil boring unit. Groundwater was found at depths ranging from four to twelve feet below the ground surface and was analyzed for the Target Compound List (see Appendix D). As mentioned earlier, it is believed that the groundwater samples which were collected were obtained from a perched aquifer on top of the relatively impermeable clay layer. G101 through G104 all contained lead at levels greater than three times background. Samples G103 and G104 also contained aluminum, barium, chromium, cobalt, copper, iron, and nickel at levels greater than three times background (see Table 4 for Key Samples). The results from the samples were also compared to IL EPA's TACO Guidance Document benchmarks for Class II groundwater as well as to G105 which was considered a background sample. The reason G105 was used as a background location was that it was collected on the far west boundary of the Rustoleum property and previous hydrogeological studies had indicated that groundwater flow was towards the east. The analytical results indicate that the site has impacted the groundwater with lead, which was widely used in the manufacturing of paint in the past. The groundwater samples also were found to contain iron at levels exceeding TACO benchmarks, however, iron was also found at elevated levels in the background sample and thus cannot be attributed to the site. The levels of lead that were detected in the groundwater samples ranged from 244 ug/L to 644 ug/L in samples G101 through G104 while lead was found at 80 ug/L in the background

sample. The TACO Class II groundwater remediation objective for lead is 100 ug/L. Lead has very low solubility in water and has low mobility in groundwater.

As discussed earlier, although the analytical results did not show the presence of other volatiles or semi-volatiles in the groundwater exceeding TACO remediation objectives, the groundwater collected from the G103 and G104 locations had a strong chemical odor and had extremely elevated TVA readings. It is important to mention that other contamination may be present in the groundwater that the analytical results do not indicate.

5.3 Surface Water Pathway

Surface water runoff from the site flows into storm sewers. The southerly flowing North Shore Channel is located approximately one quarter mile to the west of the site, however, there is no direct surface water route from the site to the North Shore Channel. Preliminary hydrogeological studies conducted by O.H. Materials Corporation indicated that groundwater flow at the site was to the east, which would be away from the North Shore Channel and indicate that contaminated groundwater from the site would be unlikely to enter the Channel. Lake Michigan, which is used as a major recreational area and fishery, is located approximately two miles to the east of the site. Due to the low mobility of lead in groundwater, it is unlikely that the lead would be transported by groundwater into Lake Michigan.

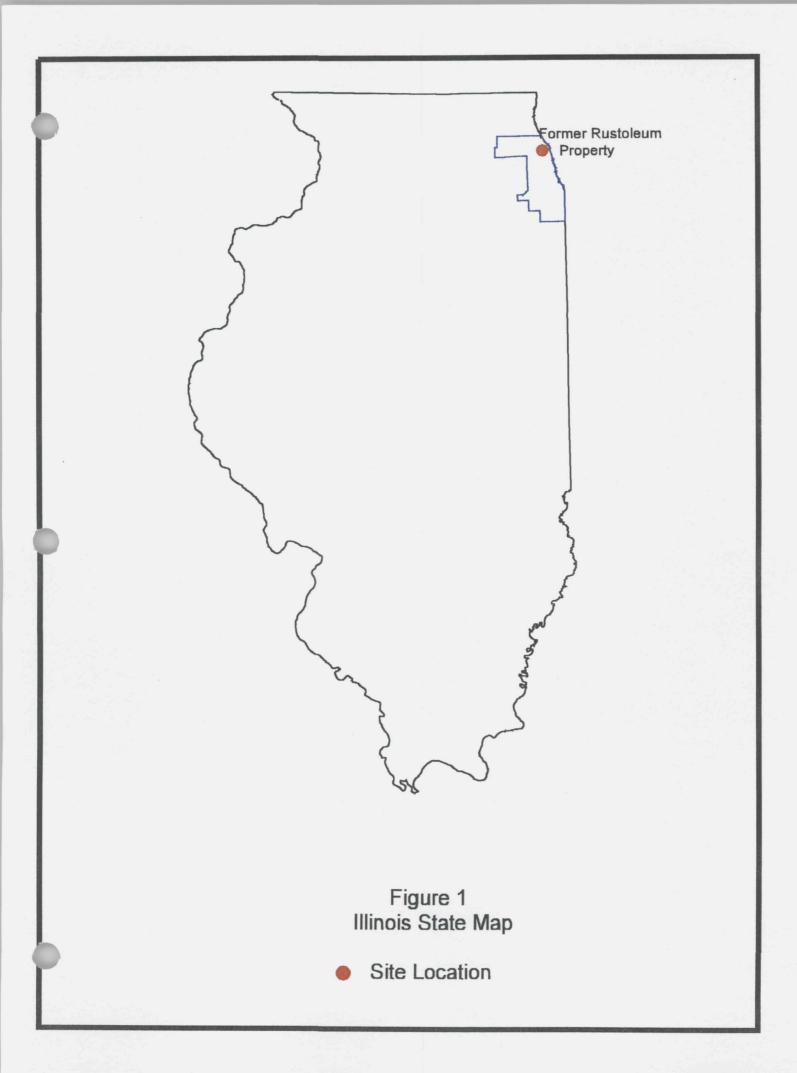
5.4 Air Pathway

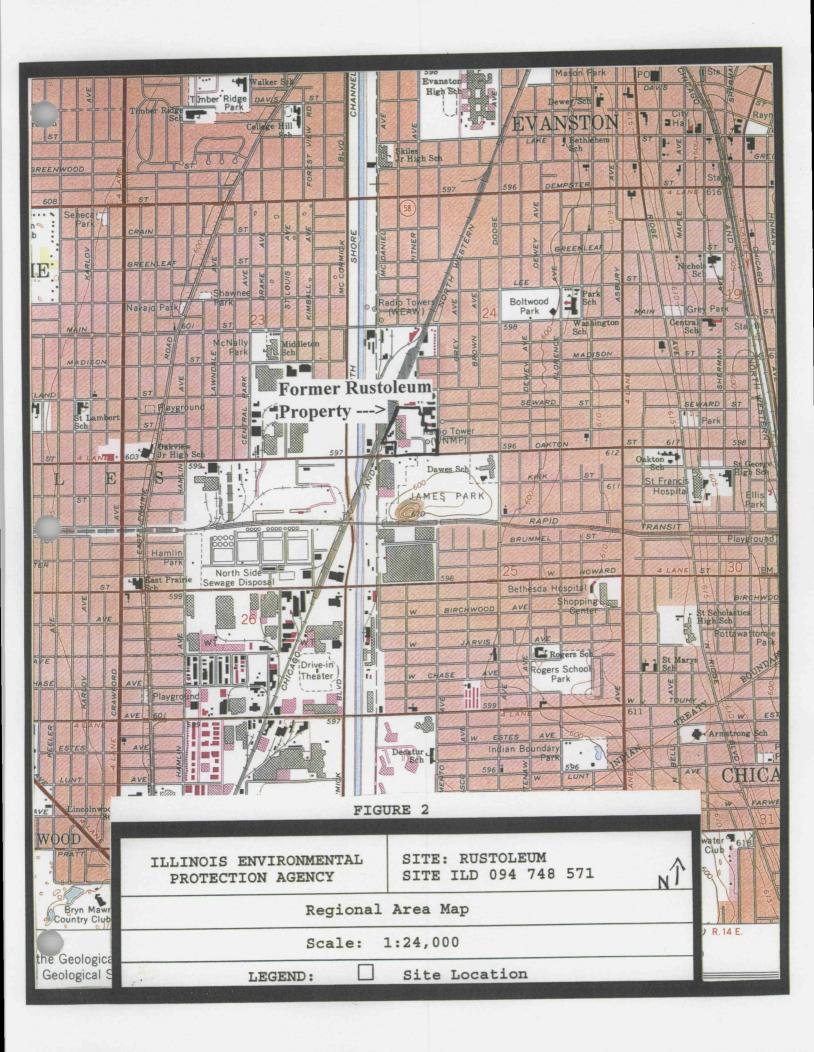
The former Rustoleum property is now covered almost entirely by Home Depot and its parking lot. Because of this and the fact that there have been no documented complaints concerning air problems it is unlikely that contaminants resulting from past uses of the property would be of concern for the air pathway.

5.5 Soil Exposure

As discussed in Section 2.3, in 1991 Rustoleum had several areas of both surficial and subsurface contaminated soils excavated and removed from the property. Because of this and the fact that the site is now covered almost entirely with the Home Depot building and asphalt, it is unlikely that workers or visitors to the site are exposed to potential contaminants in the soils at the site. No soil samples were collected from surrounding residential properties.

Appendix A Figures





Former Rustoleum Property --->

FIGURE 3

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SITE: Rustoleum SITE ILD 094 748 571

1968 Aerial Photograph Showing Former Rustoleum Property

Scale: unknown

LEGEND:

Site Location





FIGURE 4

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SITE: Rustoleum SITE ILD 094 748 571

1970 Aerial Photograph Showing Former Rustoleum Property

Scale: unknown

LEGEND:

J Site Location





FIGURE 5

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SITE: Rustoleum SITE ILD 094 748 571

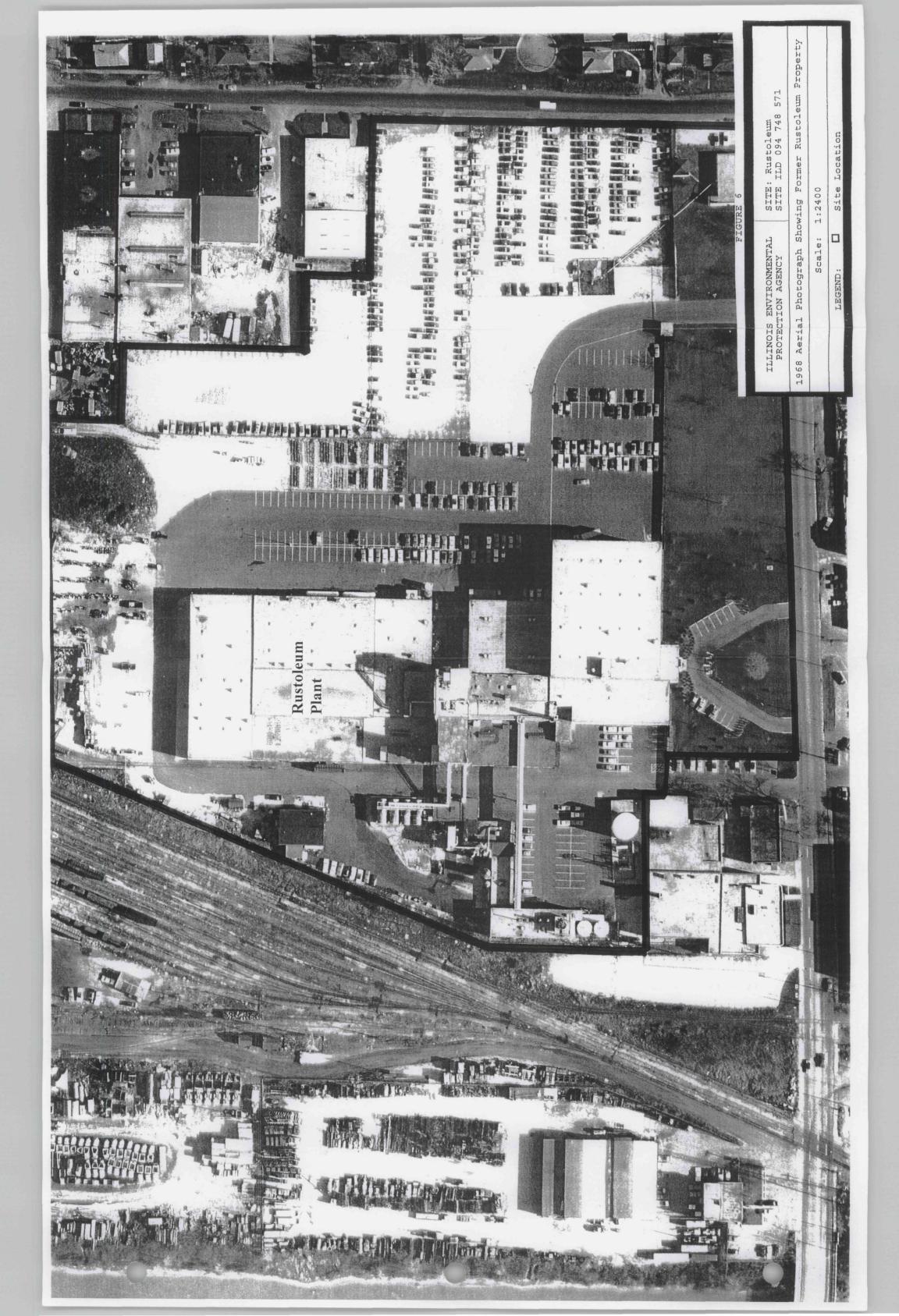
1995 Aerial Photograph Showing Former Rustoleum Property

Scale: 1:5000

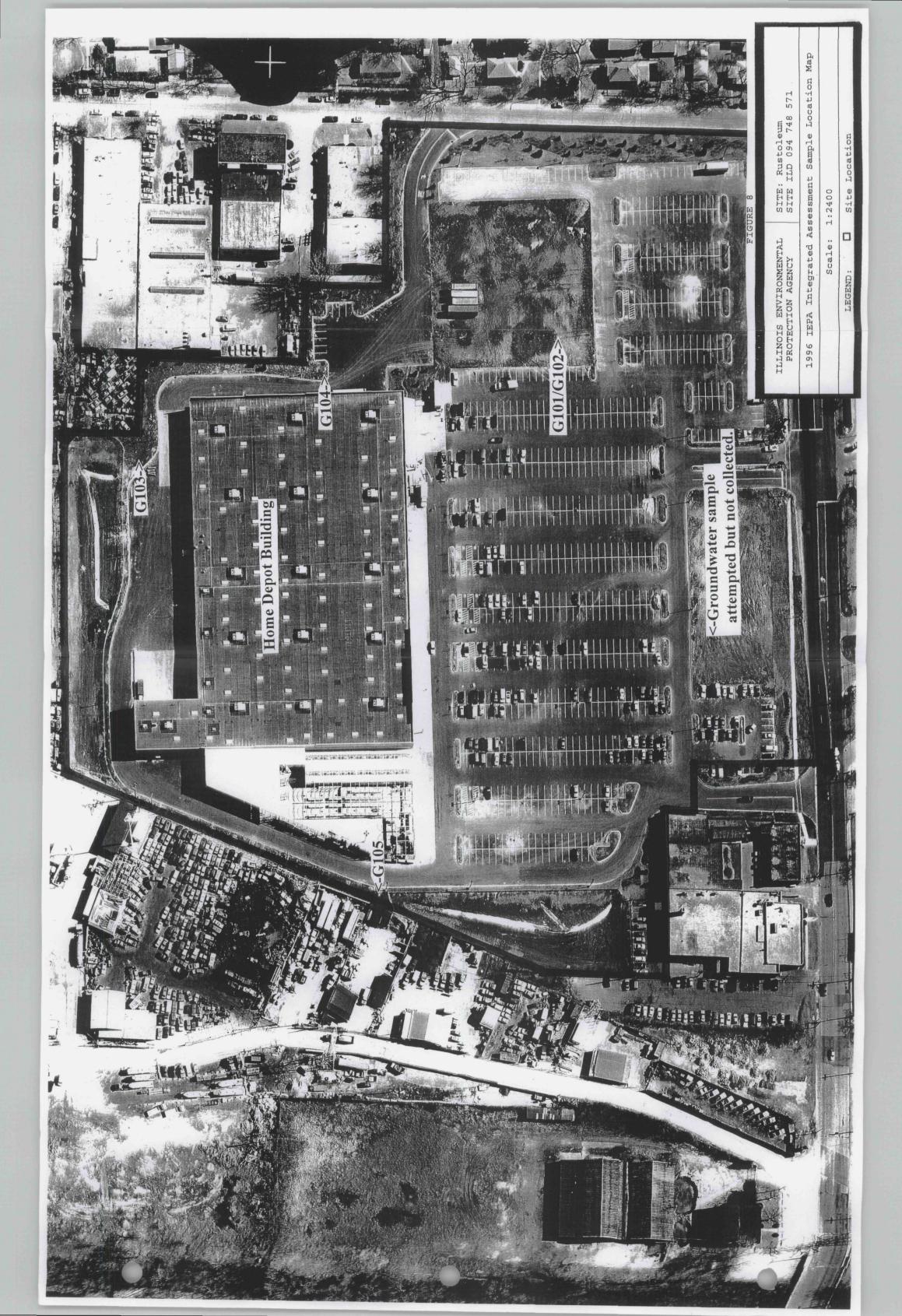
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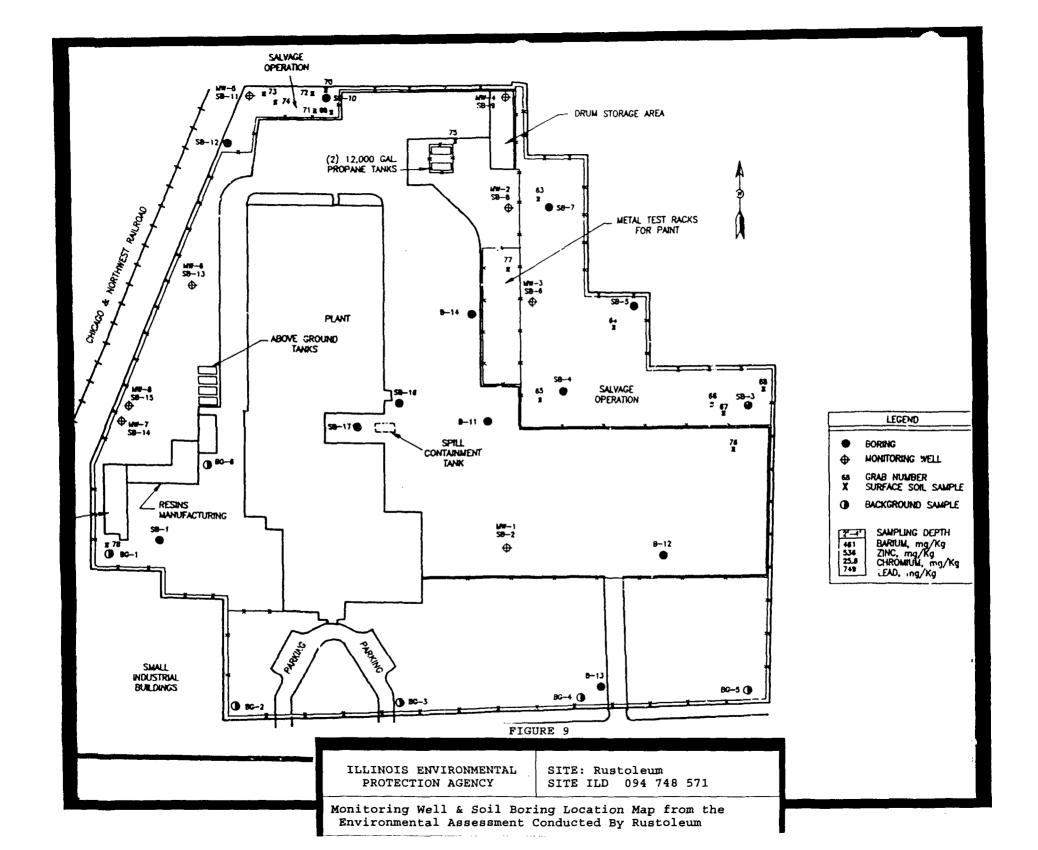
Site Location











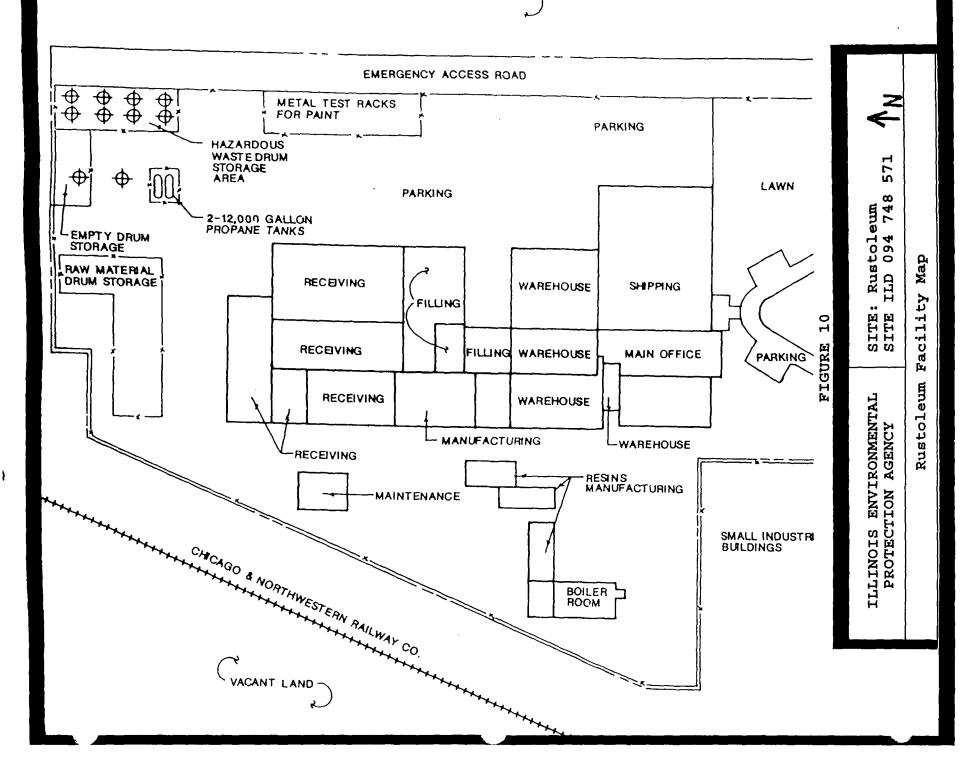
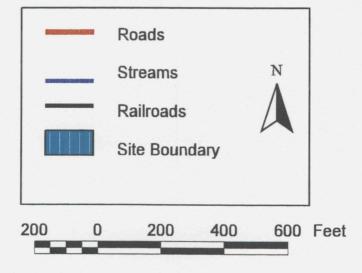
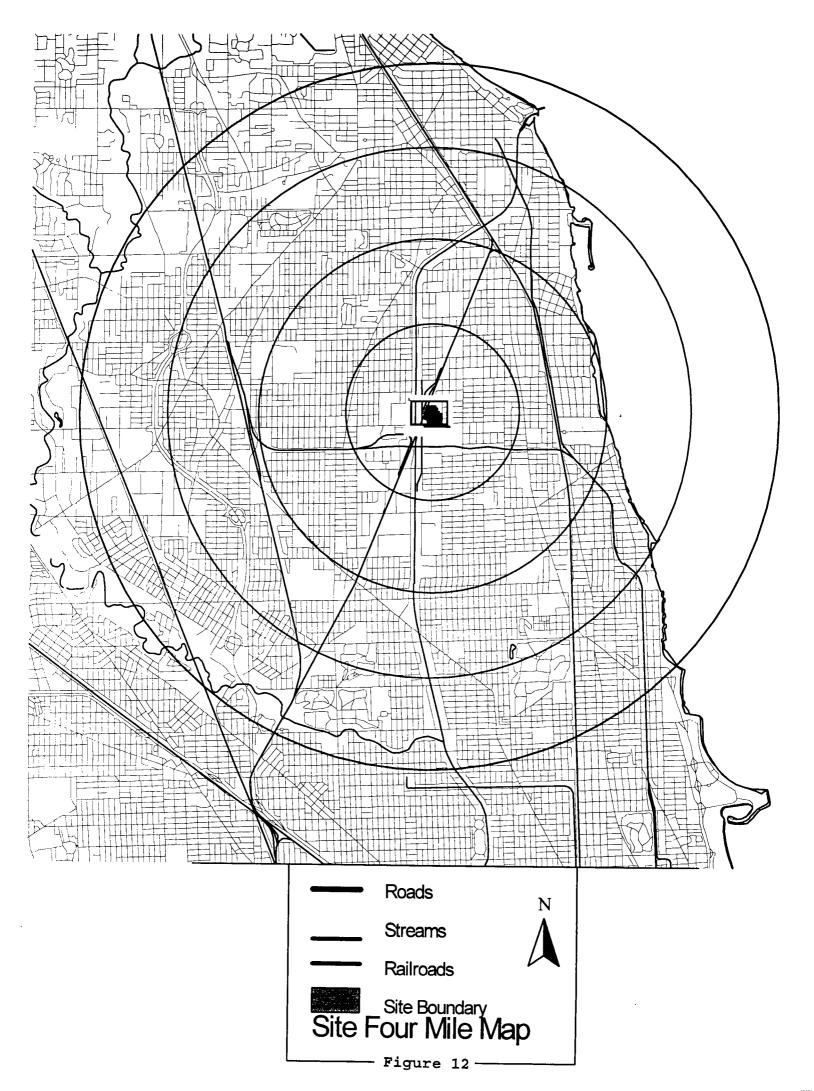




Figure 11 Site Map





Appendix B

Tables

SAMPLING POINT	TACO	G101	G102	G103	G104	G105
	Tier 1					
Date Collected	Class II	4-15-97	4-15-97	4-15-97	4-16-97	4-15-97
Parameter	Groundwater	Water	Water	Water	Water	Water
Groundwater Depth (ft)		10	10	12	6	4
Screening Depth (ft)	Objective	12-14	12-14	14-16	12-14	4-6
VOLATILES						
Benzene	25			15	10	150 J
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
SEMIVOLATILES						
Napthalene	39	-	-		2 J	
Anthracene	10500					0.7 J
Fluoranthene	1400		-		0.6 J	3 J
Pyrene	1050	 malualustralustralustralustral				2 J
Benzo(a)anthracene	0.65	-		-	-	1 J
Chrysene	7.5				n knokuoja knoka <u>dinak</u> nokuyina i	1 J
bis(2-Ethylhexyl)phthalate				1 J	0.9 J	0,9 J
Benzo(a)pyrene	2					1 J
Benzo(b)fluoranthene Benzo(k)fluoranthene	0.9 0.85		-	-		1 J
Indeno(1,2,3-cd)pyrene	2.15	 				1 J 0.9 J
indeno(1,2,3-cd)pyrene	ug/L	ug/L	ug/L	ug/L	ug/L	A CASE OF THE PARTY OF THE PART
PESTICIDES	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
LOTIOIDEO						
Aldrin	0.2					0.02 J
4,4'-DDD	0.55					0.23
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
INORGANICS						
			ORIGINADADADADADADADADA	o en	Company and State of the State	discipars a spansa successor
Aluminum	63665633	1960	361	11700	7280	1530
Antimony	24	2.1 B		8.7 B	14.5 B	
Arsenic	200	46.8	28.3	53.8	26.5	43.8
Barium	2000	436	329	1580	1100	307
Beryllium	500		-	3.8 B	7.00	
Cadmium Calcium	50		07000	400000	1.2 B	101000
Chromium	1000	41300 6.7 B	37900	123000	77100	131000
Cobalt	1000	3.8 B	1 B	42.1 17.5 B	46	4.2 B
Copper	650	30.8	9.6 B	188	7.4 B 192	2 B 44.4
Iron	5000	6460	2100	48000	26500	11700
Lead	100	644	244	866	613	80.8
Magnesium		42900	40300	38700	38000	33100
Manganese	10000	121	81.6	431	481	673
Mercury	10	1.6			1	
Nickel	2000	9.4 B	3.6 B	77.1	32.1 B	7.1 B
Potassium		25500	25000	15600	22400	18300
Selenium	50	8.2	4.4 B	5	-	
Silver				5.8 B	3.6 B	
Sodium		45100	43900	41900	70400	61000
Thallium	20	3,8 B		10	7.2 B	4.7 B
Vanadium		9.3 B	2.1 B	42.2 B	16.6 B	4.3 B
Zinc	10000	198	66.7	857	1370	156
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

This table presents a summary of the groundwater samples collected from the former Rustoleum property. The remediation objectives were taken from IEPA's TACO Guidance Document. These Tier 1 Remediation objectives are based on an industrial/commercial scenario with Class II Groundwater.

Concentrations that appear in red have exceeded the TACO Tier 1 Class II Groundwater Remediation Objective.

TABLE 2 SAMPLE DESCRIPTIONS

	Groundwater Depth	Screening Depth	Sample Location	Comments	
G101/ G102	10'	12'- 14'	210' S, 80' E of SE corner of Home Depot Building	PID - no elevation FID - 1200	
G103	12'	14'- 16'	80' N, 45' W of norhteast corner of Home Depot Building	PID-no elevation FID - 525 Groundwater had strong odor.	
G104	6'	12'- 14'	98' N, 45' E of southeast corner of Home Depot Building	l	
G105	4'	4'- 6'	60' W, 30' N of southwest corner of garden center at Home Depot Building	PID - no elevation FID - 215	

Table 3 Underground Storage Tanks

Tank Compartment Designation	Compartment Capacity (Gallons)	Total Capacity (Gallons)	Tank Contents
104	12000	12000	Mineral Spirits
105	10000	10000	Xylene
106A	2000	6000	Butanol
106B	2000	6000	Aliphatic Solvent Blend
106C	2000	6000	Empty
107	10000	10000	Toluene
108A	3330	10000	Gasoline
108B	3330	10000	MIBK
108C	3330	10000	Propylene
109A	7000	14000	Glycol Ether Mineral Spirits
109B	7000	14000	Xylol
110A	7000	14000	MEK
110B	7000	14000	VM&P Naphtha

SAMPLING POINT Date Collected Parameter	TACO Tier 1 Class II Groundwater	G101 4-15-97 Water	G102 4-15-97 Water	G103 4-15-97 Water	G104 4-16-97 Water	G105 background 4-15-97 Water
Groundwater Depth (ft)	Remediation	10	10	12	6	4
Screening Depth (ft)	Objective	12-14	12-14	14-16	12-14	4-6
INORGANICS						
Aluminum				11700	7280	1530
Barium	2000			1580	1100	307
Chromium	1000		ľ	42.1	46	4.2 B
Cobalt	1000		ļ	17.5 B	7.4 B	2 B
Copper	650			188	192	44.4
lron	5000			48000		11700
Lead	100	644	244	866	613	80.8
Nickel	2000			77.1	32.1 B	7.1 B
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L

This table presents a summary of the groundwater samples collected from the former Rustoleum property. The remediation objectives were taken from IEPA's TACO Guidance Document. These Tier 1 Remediation objectives are based on an industrial/commercial scenario with Class II Groundwater.

Appendix C

Site Characteristics Data Form

ŞEPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

I. IDENTIFICATION

O1 STATE O2 SITE NUMBER

TL 09474857/

VLIA	PART 1 - SIT	E LOCATION AND IN:	SPECTION INFORM	IATION 22	1017 178 3 11
II. SITE NAME AND LOCAT	TION				
01 SITE NAME (Legal, common, or de	secretive name of site)			PECIFIC LOCATION IDENTIFIER	
Rustoleum	^		2301 0	akton	
03 CITY		1	STATE 05 ZIP CODE	06 COUNTY	07COUNTY 08 CONG CODE DIST
Evanston OB COORDINATES		T 10 TYPE OF OWNERSHIP (C	4	Cook	
LATITUDE	LONGITUDE	A. PRIVATE DE	B. FEDERAL	C. STATE D. COUNT	
III. INSPECTION INFORMA					
01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION	un		.,
4,15,97 MONTH DAY YEAR	A INACTIVE	BEGINNIN	40 + 199	UNKNOW	N
04 AGENCY PERFORMING INSPE	CTION (Check at that apply)	J			
□ A. EPA □ B. EPA CO	NTRACTOR		C. MUNICIPAL D. N	MUNICIPAL CONTRACTOR _	
E. STATE F. STATE	CONTRACTOR	(Name of firm)	G. OTHER		(Name of firm)
05 CHIEF INSPECTOR		(Name of him)		(Soecify)	08 TELEPHONE NO.
1 - 1 2		EDL H	<i></i>	TEDA	12171782-6761
Peter Sare	nsen	10 TITLE		11 ORGANIZATION	12 TELEPHONE NO.
I DR O I NEK INSPECTORS		F DL 7	11	TEDA	() (
Brad lay	101	FIZE	<u> </u>	LEIM	
Brad Tay Mark Wo	agner	EPS II	<u></u>	IEPA	() "
Ted Pre	5/aH	EPSI		TEPA	() //
7 967 7 7 9	720 (1	1		PIPI	
					()
					
					()
13 SITE REPRESENTATIVES INTE	RVIEWED	14 TILE \$2 1/2	15ADDRESS		16 TELEPHONE NO
Me Nolan	Roita	Home Depot	184		1847 8162226
7.13, 70 CVC	110112	a lior ney			01/0/02220
Mr. Helen Mr. Jin h	unatley_	Home Deput			1847) 413-4500
	7				
					()
	<u> </u>				()
					()
					()
	•				
17 ACCESS GAINED BY	18 TIME OF INSPECTION	19 WEATHER CONDITION	vs		
PERMISSION WARRANT	10:00 AM	500 /00	iht wind		
IV. INFORMATION AVAIL		1/- / //	1. 5-1.00	+ sunny	
01 CONTACT		02 OF (Agency/Organization	,	_	03 TELEPHONE NO.
Mr. Tom	Cranse	TEPA 1	te Anness	ment Unit Manag	
04 PERSON RESPONSIBLE FOR	SITE INSPECTION FORM	05 AGENCY 0	6 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Mr. Pete.	Gorensen	TEPA	Site Assess	217-782676	MONTH DAY YEAR
EPA FORM 2070-13 (7-81)			, - //	<u> </u>	

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT

L IDENTIFICATION 01 STATE 02 SITE NUMBER

19474857 PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS IL HAZARDOUS CONDITIONS AND INCIDENTS 01 A. GROUNDWATER CONTAMINATION 02 OBSERVED (DATE: D POTENTIAL ALLEGED 03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION 01
B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 02 ☐ OBSERVED (DATE: D POTENTIAL 04 NARRATIVE DESCRIPTION Surface water runoft enters storm sewers. Most of site 02 C OBSERVED (DATE. 01 C. CONTAMINATION OF AIR D POTENTIAL ☐ ALLEGED 03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION None Known of. 01 D. FIRE/EXPLOSIVE CONDITIONS 02 OBSERVED (DATE: POTENTIAL C ALLEGED 03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION 01 C E. DIRECT CONTACT 02 C OBSERVED (DATE: _ ☐ POTENTIAL 03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION most of site under parement a building limited potential of direct contact with contaminants, 02 G OBSERVED (DATE: ☐ POTENTIAL ☐ ALLEGED 01 T. F. CONTAMINATION OF SOIL 03 AREA POTENTIALLY AFFECTED: . 04 NARRATIVE DESCRIPTION 01 G. DRINKING WATER CONTAMINATION 02 C OBSERVED (DATE: 03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION Although grandwater is contaminated, there are no Known 01 (H. WORKER EXPOSURE/INJURY 04 NARRATIVE DESCRIPTION 03 WORKERS POTENTIALLY AFFECTED: . Most of site paved traded limiting worker exposure, 01 I. POPULATION EXPOSURE/INJURY 02 C OBSERVED (DATE: ☐ POTENTIAL ☐ ALLEGED 03 POPULATION POTENTIALLY AFFECTED: 04 NARRATIVE DESCRIPTION

≎EPA	POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION PART 4 - PERMIT AND DESCRIPTIVE INFORMATION				ON	1. IDENTIFICATION 01 STATE 02 SITE NUMBER 12 09474857
II. PERMIT INFORMATION						
01 TYPE OF PERMIT ISSUED (Check of that epply)	02 PERMIT NUMBER	03 DATE IS	SSUED	04 EXPIRATION DATE	05 COMMENTS	
A. NPDES						
□ B. UIC						
G. C. AIR				 		
D. RCRA		- 				
☐ E. RCRA INTERIM STATUS	 				<u> </u>	
□ F. SPCC PLAN						
G. STATE (Specify)						
E. H. LOCAL (Specify)	 					
☐ I. OTHER (Specify)		-				
□ J. NONE	<u> </u>			L		
III. SITE DESCRIPTION 01 STORAGE/DISPOSAL (Check at that apply)	02 AMOUNT 03 UNIT	OF MEASURE	04.75	REATMENT (Check at mat a		05 OTHER
	OZ AMOORT OS ORITE	Jr MEASURE	04,15	IEV I WEN' (CHACK SE IUSE S	POY)	OS OTHER
□ A. SURFACE IMPOUNDMENT				INCENERATION		A. BUILDINGS ON SITE
☐ B. PILES C. DRUMS, ABOVE GROUND				UNDERGROUND INJ		
D. TANK, ABOVE GROUND			ι	CHEMICAL/PHYSICA	·L	
E. TANK, BELOW GROUND			i	BIOLOGICAL		06 AREA OF SITE
F. LANDFILL	······································			WASTE OIL PROCES		
G. LANDFARM				SOLVENT RECOVER OTHER RECYCLING		~ 20acres
☐ H. OPEN DUMP				OTHER	RECOVERY	(Acres
C I. OTHER			" ".	(So	cafy)	1
(Specify)			<u> </u>	<u></u>		
07 COMMENTS	i	0 1	17.	0	_	
All above & be	clow grunne	d Tan	K 5	Alrun	~ nei	eremoved
		1		-		
All	\wedge \wedge \wedge					
A discoved at	f by Rusto	lemm,				
+ disposed of	f by Rusto	le mm,				
OT COMMENTS All above & be 4 disposed of	f by Rusto	lenm,				
	f by Rusto	lenm,				
IV. CONTAINMENT	f by Rusto	lenm,				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one)		-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE	☐ 8. MODERATE	-		JATE, POOR		JRE. UNSOUND, DANGEROUS
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one)	☐ 8. MODERATE	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE	☐ 8. MODERATE	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE	☐ 8. MODERATE	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE	☐ 8. MODERATE	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE	☐ 8. MODERATE	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE 02 DESCRIPTION OF DRUMS, DIKING, LINERS, B	☐ 8. MODERATE	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE 02 DESCRIPTION OF DRUMS, DIKING, LINERS, B	☐ B. MODERATE ARRIERS, ETC.	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE 02 DESCRIPTION OF DRUMS, DIKING, LINERS, B V. ACCESSIBILITY 01 WASTE EASILY ACCESSIBLE:	☐ B. MODERATE ARRIERS, ETC.	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE 02 DESCRIPTION OF DRUMS, DIKING, LINERS, B V. ACCESSIBILITY 01 WASTE EASILY ACCESSIBLE: YES 02 COMMENTS	☐ B. MODERATE ARRIERS, ETC.	-				
IV. CONTAINMENT 01 CONTAINMENT OF WASTES (Check one) A. ADEQUATE, SECURE 02 DESCRIPTION OF DRUMS, DIKING, LINERS, B V. ACCESSIBILITY 01 WASTE EASILY ACCESSIBLE:	☐ B. MODERATE ARRIERS, ETC.	-				

\$EPA

POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT TS-WATER DEMOGRAPHIC AND ENVIRONMENTAL D

	I. IDENTIFICATION			
-	01 STATE	02 SITE NUMBER		
-	IL	094748571		

32 1	PARIS	- WATER, DEMOGRAPI	HIC, AND ENVIRO	ONMENTAL D	ATA L	
VI. ENVIRONMENTAL INFORMA						
01 PERMEABILITY OF UNSATURATED ZO	ONE (Check one)					
☐ A. 10 ⁻⁶ - 10 ⁻¹	6 cm/sec 🗆] B. 10 ⁻⁴ - 10 ⁻⁶ cm/sec [C. 10 ⁻⁴ – 10 ⁻³ cr	m/sec □ D.GR	EATER THAN	10 ⁻³ cm/sec
02 PERMEABILITY OF BEDROCK (Check of	ne)					
☐ A. IMPERM (Less then !	EABLE [B. RELATIVELY IMPERMEAE	BLE C. RELATIVE			PERMEABLE then 10 - 2 cm/sec)
03 DEPTH TO BEDROCK	04 DEPTH OF	CONTAMINATED SOIL ZONE	05 SOIL :	ж		
(ft)		(ft)				
08 NET PRECIPITATION	07 ONE YEAR	24 HOUR RAINFALL	08 SLOPE SITE SLOPE	: DIRECTION OF	CITE SI ORE	TERRAIN AVERAGE CLORE
(in)		(in)	%	DIRECTION OF	SITE SCOPE	TERRAIN AVERAGE SLOPE
09 FLOOD POTENTIAL	1	0				
SITE IS IN YEAR FLOO	ODPLAIN	☐ SITE IS ON BARR	IER ISLAND, COAST	AL HIGH HAZARE	AREA, RIVER	INE FLOODWAY
11 DISTANCE TO WETLANDS (5 ecre minimu	em)		12 DISTANCE TO CRI	TICAL HABITAT (of a	indengered species.	
ESTUARINE		OTHER		_	····	, (mi)
A(mi)	B	(mi)	ENDANGER	ED SPECIES:		
13 LAND USE IN VICINITY						
DISTANCE TO:						
COMMERCIAL/INDUSTRI	AL	RESIDENTIAL AREAS; NATIO FORESTS, OR WILDLI			AGRICULTU AG LAND	RAL LANDS AG LAND
$A = \frac{2 \frac{j}{8}}{8} $ (mi)		B. 4	(mi)	c. 7	<u> </u>	D. >4 (mi)
14 DESCRIPTION OF SITE IN RELATION T	O SURROUNDIN	IG TOPOGRAPHY				\
Located in	n urba	uses in	th reni	dential	, con cinit	nmercial
+ industria	\ lan	, , , ,				
site.						
						•
VII. SOURCES OF INFORMATION	(Cite specific ret	erences, e.g., state flee, sample analysm	. reports)			
						ı

\$EPA	P	SITE INSP	ARDOUS WASTE SITE ECTION REPORT NER INFORMATION		CATION SITE NUMBER 094748571
II. CURRENT OWNER(S)		_:	PARENT COMPANY (# apostcable)		
Home Depot OS STREET ADDRESS (P. O. BOL AFD P. MC.)		02 D+B NUMBER	08 NAME 10 STREET ADDRESS (P.O. Box, AFD P. etc.)		09 D+8 NUMBER
33 STREET ADDRESS (7.3. 30), 11 5 5 7 400)		54 00 000			
Evanyon	OB STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
DI NAME		02 D+B NUMBER	08 NAME		09 D+B NUMBER
03 STREET ADDRESS (P 0. Box, RFO F. etc.)		04 SIC CODE	10 STREET ADDRESS (P.O. BOX. RFD P. on	<u> </u>	11 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 GTY	13 STATE	14 ZIP CODE
01 NAME		02 D+B NUMBER	OB NAME		09 D+B NUMBER
D3 STREET ADDRESS (P.O. Box, RFD F, Brc.)		04 SIC CODE	10 STREET ADDRESS (P.O. Box. RFD P. etc		11 SIC CODE
OS CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
D1 NAME	-	02 D+8 NUMBER	08 NAME		09 D+8 NUMBER
03 STREET ADDRESS (P.O. Box, RFO P. orc.)	· · · · · ·	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFO P. on	£)	1 1 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP COOE
III. PREVIOUS OWNER(S) (Last most recent	first)		IV. REALTY OWNER(S) (# sopression); Net most recent first)	·
Rustolenn		02 D+8 NUMBER	01 NAME		02 D+8 NUMBER
03 STREET ADDRESS (P.O. BOX, AFD P. OIC.)	Kuny	04 SIC CODE	03 STREET ADORESS (P.O. Box, RFD #, et	re.)	04 SIC CODE
Vernon Hills	00STATE	07 ZIP CODE	os aty	06 STATE	07 ZIP CODE
DI NAME		02 D+8 NUMBER	O1 NAME		02 D+8 NUMBER
03 STREET ADDRESS (P.O. Box, RPO P. MC.)		04 SIC CODE	O3 STREET ADORESS (P.O. Box, RFD #, ex	c.)	04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
01 NAME		02 D+8 NUMBER	O1 NAME		02 D+8 NUMBER
03 STREET ADDRESS (P.O. Box. RFD P. erc.)		04 SIC CODE	03 STREET ADORESS (P. O. Box, RFO F. on	2.)	04 SIC CODE
05CITY	06 STATE	07 ZIP CODE	05 CITY	OS STATE	07 ZIP CODE
V. SOURCES OF INFORMATION (Cate	specific references	e.G., State lifes surrain process	M. (20072)		
The state of the s			· · · · · · · · · · · · · · · · · · ·		
					•

\$EPA		POTENTIAL HA SITE INSP 9 - GENERATOR/	L IDENTIFI 01 STATE 02 JL C	ICATION SITE NUMBER 194748 57	
II. ON-SITE GENERATOR					
01 NAME		02 D+B NUMBER			
Rustolena					
03 STREET ADDRESS (P.O. Box, RFD P, etc.)		04 SIC CODE			
05 CITY	06 STATE	07 ZIP CODE	· .		
•	ł				
III. OFF-SITE GENERATOR(S)					
01 NAME		02 D+B NUMBER	01 NAME		02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD 0, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD P. erc.)		04 SIC CODE
			, , , , , , , , , , , , , , , , , , , ,		0-00000
	loe ota-	07 70 0005	los oraș	100 071	1 2000
05 CITY	UO STATE	07 ZIP CODE	05 CITY	UBSIATE	07 ZIP CODE
0		02.0 + 8 *******	los venes		20.0 . 2
01 NAME		O2 D+8 NUMBER	01 NAME	,	02 D+8 NUMBER
03 STREET ACORESS (P.O. Box, RFD #, etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
IV. TRANSPORTER(S)					
01 NAME		02 D+B NUMBER	01 NAME		02 D+8 NUMBER
		1			
D3 STREET ADDRESS (P.O. Box, RFD P. etc.)		04 SIC CODE	03 STREET ADORESS (P.O. BOX. RFD P. etc.)		04 SIC CODE
	•	1			
DS CITY	IO6 STATE	07 ZIP CODE	05 CITY	IOS STATE	07 ZIP CODE
33 311 1			33 311		O. 1. 0001
		02 D+B NUMBER	01 NAME		02 D+B NUMBER
DINAME		UZ DYB NUMBER	U HAME		UZ DTB NUMBER
		To . 2:2 222	000000000000000000000000000000000000000		In . 510 0005
D3 STREET ADDRESS (P.O. Box, RFD P. etc.)		04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD P, etc.)		04 SIC CODE
DS CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE
		· _ ·			
V. SOURCES OF INFORMATION (Care	pecific references, o	.g., state files, sempre arrays	ne, reports)		
	· · · · · · · · · · · · · · · · · · ·				

EPA FORM 2070-13 (7-81)

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POTENTIAL HAZARDOUS WASTE SITE SITE INSPECTION REPORT PART 10 - PAST RESPONSE ACTIVITIES

L IDENTIFICATION			
	02 SITE NUMBER		
IZ	094748	571	

VLIA	PART 10 - PAST RESPONSE ACTIVITIES	11 1094748 571		
II PAST RESPONSE ACTIVITIES (Construed)				
01 © R. BARRIER WALLS CONSTRUCTED 04 DESCRIPTION	02 DATE	03 AGENCY		
01 🗆 S. CAPPING/COVERING 04 DESCRIPTION	02 DATE			
01 T. BULK TANKAGE REPAIRED 04 DESCRIPTION	02 DATE	03 AGENCY		
01 D. U. GROUT CURTAIN CONSTRUCTED 04 DESCRIPTION	02 DATE	03 AGENCY		
01 TV. BOTTOM SEALED 04 DESCRIPTION	02 DATE	03 AGENCY		
01 T. W. GAS CONTROL 04 DESCRIPTION	02 DATE	03 AGENCY		
01 T.X. FIRE CONTROL 04 DESCRIPTION	02 DATE	03 AGENCY		
01 © Y. LEACHATE TREATMENT 04 DESCRIPTION	02 DATE	03 AGENCY		
01 © Z. AREA EVACUATED 04 DESCRIPTION	02 DATE			
01 🗀 1. ACCESS TO SITE RESTRICTED 04 DESCRIPTION	02 DATE	,		
01 🗀 2. POPULATION RELOCATED 04 DESCRIPTION		03 AGENCY		
01 I 3. OTHER REMEDIAL ACTIVITIES 04 DESCRIPTION 1990/199/ remed	lial activities conduc	ted by Rustoleum		
prior to the sale of the property to Home Depot included the removal of underground tanks of the execution of removal of contaminated 50:15.				
III. SOURCES OF INFORMATION (Cite specific refere	inces, e.g., state files, sample analysis, reports)			

Appendix D

Target Compound List

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chlorde	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroehtene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachioroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene	
bis(2-Chloroethyl) Ether	Diethylphthalate	
Benzyl Alcohol	N-Nitrosodiphenylamine	
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene	
N-Nitroso-Di-n-Propylamine	Phenanthrene	
Nitrobenzene	4-Bromophenyl-phenylether	

Hexachlorobutadiene	Anthracene
2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	ldeno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol	
Phenol	2,4,5-Trichlorophenol	
2-Chlorophenol	4-Chloro-3-methylphenol	
2-Nitrophenol	2,4-Dinitrophenol	
2-Methylphenol	2-Methyl-4,6-dinitrophenol	
2,4-Dimethylphenol	Pentachlorophenol	
4-Methylphenol	4-Nitrophenol	
2,4-Dichlorophenol		

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

Inorganic Target Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobolt	Vanadium
Copper	Zinc

Iron	Cyanide
Lead	Sulfide
Magnesium	

Appendix E

IL EPA Site Photographs

SITE ILD#: 094 748 571 COUNTY: Cook

DATE: 4-15-97

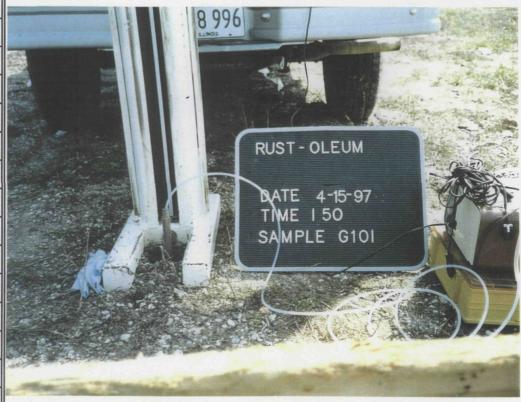
TIME: 1:50 PM

PHOTO BY: Peter Sorensen

Roll / PHOTO #: roll 1 - photo 1

SAMPLE#: G101/G102

Direction: south



DATE: 4-15-97

TIME: 1:50 PM

PHOTO BY: Peter

Sorensen

Roll / photo#: roll

1/ photo 2

SAMPLE #: G101/G102

Direction: west



SITE ILD#: 094 748 571 COUNTY: Cook

DATE: 4-15-97

TIME: 4:00 PM

PHOTO BY: Peter Sorensen

Roll / PHOTO #: roll 1 - photo 3

SAMPLE#: G103

Direction: south



DATE: 4-15-97

TIME: 4:00 PM

PHOTO BY: Peter

Sorensen

Roll / photo#: roll

1/ photo 4

SAMPLE #: G103

Direction: east



SITE ILD#: 094 748 571 COUNTY: Cook

DATE: 4-15-97

TIME: 5:30 PM

PHOTO BY: Peter Sorensen

Roll / PHOTO #: roll 1 - photo 5

SAMPLE#: G105

Direction: south



DATE: 4-15-97

TIME: 5:30 PM

PHOTO BY: Peter

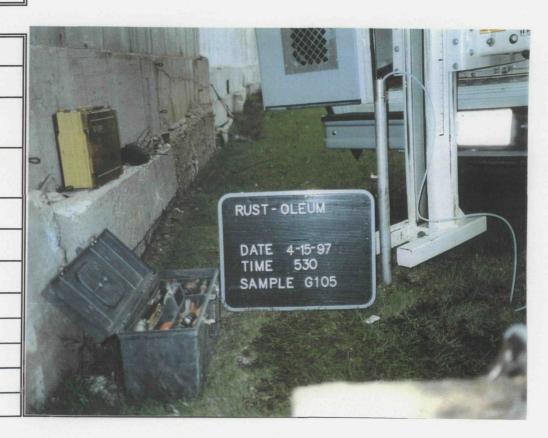
Sorensen

Roll / photo#: roll

1/ photo 6

SAMPLE #: G105

Direction: north



SITE ILD#: 094 748 571

COUNTY: Cook

DATE: 4-16-97

TIME: 10:00 AM

PHOTO BY: Peter Sorensen

Roll / PHOTO #: roll 1 - photo #7

SAMPLE#: G104

Direction: north



DATE: 4-16-97

TIME: 10:00 AM

PHOTO BY: Peter

Sorensen

Roll / photo#: roll

1/ photo 8

SAMPLE #: G104

Direction: west



US EPA Directives and Guidance for the Site Assessment Program

The Integrated Assessment will be conducted to: 1) Collect data which would satisfy both site assessment and remedial program activities. This would incorporate hazardous waste, surface water, air, and groundwater concerns. 2) The objectives of the assessment are to determine whether time critical or non time critical removals are warranted and to determine whether the site is National Priorities List (NPL) caliber. If the determination is made that the site is NPL caliber, additional data will likely be needed to complete the assessment. A sampling plan to accommodate removal and site assessment needs, as well as initial remedial needs should be developed. 3) Determination of site sampling needs will be accomplished with an understanding to assure adequate data for the removal assessment and the preparation of the Hazard Ranking System (HRS)score as well as the need for possible initial sampling for the remedial investigation. Based on the preliminary HRS score and removal program information, the site will then either be designated an No Further Action (NFA), or carried forward as an NPL listing candidate. Sites that are designated NFA or deferred to other statutes are not candidates for an Integrated Assessment. 4) Upon completion of the data gathering, there will be a determination of whether the site should be forwarded within the Superfund process, either through the remedial or removal programs.

The initial assessment of a site as it enters the Superfund program within Region V will be conducted by either a Regional On-Scene Coordinator (OSC) and a Site Assessment Manager (SAM) or by State personnel. An OSC and a SAM will be assigned for all new sites entering the Regional Superfund program. If an emergency is found to occur, U.S. EPA or state emergency removal staff will be immediately contacted for action. If the site needs further Superfund activities, a Site Assessment Team (SAT), comprised of the State, the SAM, the Remedial Project Manager (RPM), and an OSC will be formed. As necessary, additional data can be generated for the SAT to make a recommendation to the Regional Decision Team (RDT) for further possible action.

The Integrated Assessment will address all the data requirements of the revised HRS using field screening and NPL level Data Quality Objectives (DQO's) prior to data collection. It will also provide needed data in a format to support remedial investigation workplan development. Only sites that appear to score highly enough for NPL listing and that have not been deferred to another authority will receive an Integrated Assessment.

Appendix G

TACO Guidance - Tier 1 Remediation Objectives

ILLINOIS POLLUTION CONTROL BOARD June 5, 1997

IN THE MATTER OF:)	
)	
TIERED APPROACH TO CORRECTIVE)	R97-12 (A)
ACTION OBJECTIVES (TACO): 35 ILL.)	(Rulemaking - Land)
ADM CODE PART 742)	_

Adopted Rule. Final Order.

OPINION AND ORDER OF THE BOARD (by M. McFawn and J. Yi):

The Board adopts today as final, rules which create a tiered approach to establishing corrective action, i.e., remediation objectives, based on risks to human health and the environment, allowing consideration of the proposed land use at a subject site. These rules are located at a new part, 35 Ill. Adm. Code 742, entitled the Tiered Approach to Corrective Action Objectives, and have therefore become known as the TACO rules. Part 742 is unusual because it does not regulate activities at a site or mandate fixed clean up standards. Rather, the TACO rules at Part 742 provide the acceptable methodologies for determining site-specific, risk-based remediation objectives; while the programs to which TACO is applied govern the scope and extent of the site investigation preceding the application of TACO, as well as the no further remediation determination made by the Illinois Environmental Protection Agency (Agency) after the TACO derived remediation objectives are achieved. The TACO rules are to be applied to all types of remediation programs under the Illinois Environmental Protection Act (Act) (415 ILCS 5/1 et seq. (1994)), including the Site Remediation Program adopted today as a new Part 740, and the Underground Storage Tank rules found at Part 732 and the Resource Conservation and Recovery Act programs.

The TACO methodology is premised upon the statutory mandates in the Site Remediation legislation, P.A. 89-431, which was signed and became effective December 15, 1995, and later amended by P.A. 89-443, effective July 1, 1996. The Site Remediation legislation, also known as the Brownfield legislation, added Title XVII to the Act. Title XVII is intended to achieve five objectives. Those objectives are to: 1) establish a risk-based system of remediation based on the protection of human health and the environment relative to present and future use of the land; 2) assure that the land use for which remedial action was undertaken will not be modified without consideration of the adequacy of such remedial action for the new land use; 3) provide incentives for the private sector to undertake remedial action; 4) establish expeditious alternatives for the review of site investigation and remedial activities, including a privatized review process; and 5) assure that the resources of the Hazardous Waste

The Board gratefully acknowledges the efforts of the entire staff throughout this rulemaking, and in particular the concerted efforts of Kevin Desharnais as the hearing officer and attorney-assistant; Charles Feinen and Amy Muran-Felton, attorney-assistants: Anand Rao and Elizabeth Ann of the Technical Unit, and Kemelyau Pittman. Their help greatly assisted the Board in deciding and managing the complexities this rulemaking entailed.

Fund are used in a manner that is protective of human health and the environment relative to present and future uses of the site and surrounding area. The TACO rules address the first two of these objectives; the remaining three are the focus of the Site Remediation Program at Part 740.

PROCEDURAL HISTORY

On September 16, 1996 the Agency filed a proposal to add the TACO rules as a new Part 742 to the Board's rules. The Board accepted this matter for hearing on September 19, 1996. On November 7, 1996, the Board sent this matter to First Notice without commenting on the merits of the proposal. Subsequently, on December 6, 1996, the proposal was published in the *Illinois Register* (20 Ill. Reg. 15429.)

Development of the Proposal. Section 58.11 of the Act, adopted as part of the Site Remediation Program legislation, created the Site Remediation Advisory Committee (SRAC) to advise the Agency in developing the mandated TACO and the Site Remediation Program regulatory proposals. The SRAC consists of one member from each of the following organizations: the Illinois State Chamber of Commerce, the Illinois Manufacturers Association, the Chemical Industry Council of Illinois, the Consulting Engineers Council of Illinois, the Illinois Bankers Association, the Community Bankers Association of Illinois, and the National Solid Waste Management Association. In addition, representatives from the Illinois Petroleum Council, the Illinois Petroleum Marketers Association, and the City of Chicago participated. The Agency met with the SRAC, or subgroups thereof, ten times between March 14, 1996 and August 30, 1996, to discuss both the TACO rules and the rules for the Part 740 Site Remediation Program. The TACO rules proposed by the Agency and adopted for First Notice represented the consensus reached by the SRAC and the Agency on the TACO rules. (See Exh. 1 at 11.) Two sets of hearings were held in this matter during the First Notice period. The first set of hearings, held on December 2 and 3, 1996, in Chicago, and on December 10, 1996 in Springfield, was reserved for the Agency's presentation of its proposal and questions for Agency witnesses. The second set of hearings, held on January 15 and 16, 1997 in Springfield, was for the purpose of addressing remaining questions for the Agency, allowing the presentation of testimony by other interested participants, and allowing questions directed to those testifying.

Subsequent to those hearings and after the close of the public comment period, on April 17, 1997, the Board sent the proposal to Second Notice, pursuant to the Administrative Procedure Act (5 ILCS 100/1-1 et seq. (1994)), for consideration by the Joint Committee on Administrative Rules. The Board opinion accompanying the second notice order explains in detail how the TACO methodology was developed and how the rules are to be applied in conjunction with other Board rules governing site remediation. At that time the Board also bifurcated this rulemaking and adopted a separate opinion and order creating a Docket B, wherein the Board proposed for First Notice new rules concerning a single issue. The Board found it necessary to do so because the Agency had requested that the Board adopt a "mixture" rule, i.e., a rule which requires that an applicant consider the cumulative effect of

similar-acting contaminants at a site when developing the appropriate remediation objectives. Shortly thereafter, the Secretary of State informed the Board that it would not accept Docket B for First Notice publication because the rules proposed therein were amendments to Part 742 which was not yet adopted as final. Consequently, on May 1, 1997, the Board vacated its April 17, 1997 opinion and order, and replaced it with an opinion and order adopting the mixture rule under Docket B as proposed rules only.

On May 20, 1997, the Joint Committee on Administrative Rules voted no objection to the new Part 742, as proposed under Docket A. Today, the Board adopts Part 742 as final rules to become effective on July 1, 1997. The July 1, 1997 effective date coincides with the effective dates of the Site Remediation Program rules also finalized today as a new Part 740: In the Matter of: Site Remediation Program and Groundwater Quality, docketed as R97-11; and In the Matter of: Leaking Underground Storage Tanks, docketed as R97-10, adopted by the Board on March 6, 1997 amending the existing Part 732 which govern remediation of underground storage tanks. (Like the TACO rules, the Site Remediation Program was mandated by P.A. 89-431, while the leaking underground storage tank amendments were mandated by P.A. 89-457, effective May 22, 1996.)

Docket B: For the most part, the Agency's request for a mixture rule was developed in a series of filings subsequent to the public hearings in this matter, and with minimum justification in support of such rules. In its initial rulemaking proposal, the Agency had only requested a mixture rule under Tier 2 for noncarcinogenic chemicals. In its filings during the public comment period, but after the close of hearings, the Agency requested that the Board also adopt a mixture rule applicable to the development of groundwater remediation objectives under Tier 1 for both carcinogenic and noncarcinogenic chemicals, and further requested that the Tier 2 rule be applicable to carcinogenic chemicals in groundwater. The record before the Board at the time of Second Notice was insufficient for the Board to adopt the entire mixture rule ultimately requested by the Agency. However, the justification provided in support of expanding the rule's applicability did indicate that absent such a rule, remediation objectives determined using TACO may not be protective of human health at sites with multiple, similaracting chemicals. Therefore, the Board found it necessary to clearly examine the mixture rule proposed by the Agency to determine to what extent it is necessary to insure that the remediation objectives developed under TACO are protective of human health in all circumstances. Docket B was opened for that purpose. Docket B will proceed through regular rulemaking, albeit on an expedited schedule.

OVERVIEW OF THE TACO PROCESS

The TACO rules establish procedures for developing remediation objectives for soil and groundwater at remediation sites based on risks to human health, taking into account the existing pathways for human exposure and current and future use of the remediation site. The methodology consists of a three tiered approach for establishing remediation objectives. The tiers can operate fully independent of each other, and it is not necessary to perform a Tier 1 analysis before performing a Tier 2 or Tier 3 analysis, or to perform a Tier 2 analysis before

performing a Tier 3 analysis. Each successive tier allows the person conducting a remedial investigation pursuant to the Act (hereinafter referred to as the "applicant") to rely on more site-specific information, and requires a concomitant increase in the level of site-specific investigation and analysis under Part 742.

As a prerequisite to using the tiered approach to establish remediation objectives, the applicant must determine the contaminants of concern at the site. This is done by conducting a site investigation under the applicable remediation program; such investigation is not part of the TACO process. Again, the programs with which TACO is to be used include the Underground Storage Tank program at Part 732, the Site Remediation Program proposed at Part 740, and the RCRA Part B Permits and Closure Plans at Parts 724 and 725. As mentioned at the outset, these programs govern the activities at the site which address the contamination, including the scope of the site investigation and ultimately the no further remediation determination made by the Agency. (Hereinafter in the opinion, these programs are referred to as the "governing programs.") The specific requirements of the governing program control how TACO is applied to determine the applicable remediation objective. After identifying the contaminants of concern, the applicant can use the TACO process to establish remediation objectives. Each tier of the TACO process requires the applicant to consider up to four potential exposure routes for each contaminant of concern: 1) the inhalation exposure route; 2) the soil ingestion route; 3) the dermal contact exposure route¹; and 4) the groundwater ingestion route. The groundwater ingestion route is further subdivided into two components: 1) the migration to groundwater, or soil component, which must be investigated to establish a soil remediation objective; and 2) the direct ingestion of groundwater, or groundwater component, which must be investigated to establish a groundwater remediation objective. (Hereinafter each component of the groundwater ingestion route is referred to as the "soil component" or the "groundwater component"). Alternatively, as described in greater detail below, the applicant can: 1) demonstrate that a particular exposure route is not available for a contaminant of concern, and thereby exclude further consideration of that exposure route for that contaminant, or 2) rely on area background concentrations in establishing remediation objectives or to demonstrate that further remediation is not warranted.

A Tier 1 analysis requires the applicant to compare levels of contaminants of concern at the remediation site to pre-determined remediation objectives. The pre-determined remediation objectives are listed in the rules at Appendix B, Tables A through E. Separate remediation objectives are established for properties designated for residential use and for industrial/commercial use. The residential levels are the most stringent and are considered protective for all uses. The industrial/commercial levels are less stringent and must be accompanied by an institutional control, such as a deed restriction, in order to assure that the site is used only for industrial/commercial purposes. Additionally, if the site is to be

¹The dermal contact exposure route need only be considered if the applicant elects to use the Tier 2 Risk Based Corrective Action (RBCA) equations set forth in Appendix C, Table C, or a Tier 3 formal risk assessment, to establish remediation objectives.

remediated to industrial/commercial levels, the applicant must assure that the remediation levels established for construction workers are also achieved. If any contaminants of concern at a remediation site are found to exceed the applicable pre-determined levels, the applicant is required to remediate the contamination until the remediation objectives are achieved, or alternatively, to develop site-specific remediation objectives using a Tier 2 or Tier 3 analysis. Under Tier 1, if multiple noncarcinogenic chemicals with similar-acting properties are present in the groundwater, their cumulative effect must be evaluated as part of the development of remediation objectives. This is the Tier 1 component of the mixture rule adopted pursuant to the Agency's public comments during First Notice, and currently under further consideration under Docket B.

A Tier 2 analysis uses equations set forth in the rules to develop alternative remediation objectives for contaminants of concern using site-specific information. The equations used to develop site-specific remediation objectives are from the United States Environmental Protection Agency's (USEPA) Soil Screening Levels Guidance (SSL) and the American Society of Testing and Material's (ASTM) Risk Based Corrective Action (RBCA). The equations are set forth in the proposed rules at Appendix C, Tables A and C, respectively. If any contaminants of concern are found to exceed the remediation objectives developed using the Tier 2 equations, the applicant is required to remediate the contamination until the objectives are achieved or to develop alternative objectives using a Tier 3 analysis. The mixture rule for noncarcinogens is also applicable under Tier 2. Unlike a Tier 1 analysis, however, it is applicable when developing both soil and groundwater remediation objectives. This component of the Tier 2 mixture rule, as well as a mixture rule for carcinogens in groundwater, are bother under further consideration in Docket B.

A Tier 3 analysis allows the applicant to develop remediation objectives using alternative parameters not found in Tier 1 or Tier 2. It allows the applicant great flexibility in developing remediation objectives appropriate for a particular site based upon site-specific information rather than relying on general categories of information. The options available under Tier 3 include: use of modified parameters in the Tier 2 equations; use of alternative models; conducting a site-specific risk assessment; assessment of impractical remediation; and variation of the target risk level. If any contaminants of concern are found to exceed the remediation objectives developed using the Tier 3 analysis, the applicant is required to remediate the contamination until the objectives are achieved. At this time, the mixture rule is not specifically applicable to a Tier 3 analysis. However, a mixture rule for carcinogens and noncarcinogens is under consideration for soil and groundwater remediation objectives in Docket B.

Outside of the individual tiers of analysis, there are two alternative means for addressing the presence of contamination: exclusion of pathways and reliance on area background. The first option, exclusion of pathways, is based on the premise that an exposure pathway must exist for contamination to present a threat to human health. If it can be shown that a pathway does not exist for any contaminants of concern, the applicant need not address that exposure pathway for those contaminants. The methods for evaluating and excluding

exposure routes are set forth at Subpart C. The second option, reliance on area background, is based on Section 58.5(b)(1) of the Act, which provides that applicants shall not be required to remediate contaminants of concern to levels that are less than area background levels. If it can be shown that a contaminant of concern is present at levels that do not exceed area background levels for the site, the applicant need not further address that contaminant. Under appropriate circumstances, the applicant can also use background levels as remediation objectives. The methods for determining area background concentrations are set forth in Subpart D.

The applicant can use any combination of tiers if multiple contaminants of concern are present at a site. Remediation objectives established under any tier are considered equally health protective for a particular land use. Upon completion of remedial activities which achieve the established remediation objectives, the applicant is entitled to a no further remediation determination in accordance with the terms of the governing program. The TACO rules do not provide for the no further remediation determination; they provide only the process for determining site-specific remediation objectives based upon risk. The no further remediation determination is made at the conclusion of the process by the Agency pursuant to the governing program. For example, the Agency's no further remediation determination in the Site Remediation Program is effected through a No Further Remediation Letter. The same instrument is used in the Underground Storage Tank Program.

The following section contains a more detailed summary of the components of the rules. A detailed summary of the major issues raised concerning various components of the TACO rules, is set forth in the third section of the Second Notice opinion adopted on April 17, 1997. (See R97-12(A), Opinion and Order of April 17, 1997, beginning at page 33.)

SUMMARY OF THE SUBPARTS A THROUGH K

Subpart A: Introduction

This subpart contains sections concerning intent and purpose, applicability, overview and key elements of the tiered approach, and the requirements for site characterization. Section 742.100, entitled "Intent and Purpose," states that Part 742, the TACO process, contains the procedures for use in evaluating risks to human health posed by environmental conditions, and procedures for use in developing objectives for remediation which assure that risks are at acceptable levels. Furthermore, Section 742.100(b) states that the procedures are intended to provide adequate protection of human health and the environment based on risks to human health posed by environmental conditions while incorporating site-related information.

Section 742.105 sets forth the situations in which the rules are intended to apply. The applicant may use the Part 742 procedures to the extent allowed by state and federal law. The procedures must be used in accordance with the requirements of the program pursuant to which the remediation is being conducted. Section 742.105 specifically references the Underground Storage Tank program, the proposed Site Remediation Program, and the RCRA Part B Permits and Closure Plans. The use of Part 742 is subject to the limitation that it

Section 742.APPENDIX B: Tier 1 Tables and Illustrations

Section 742.TABLE E: Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route

		Groundwater Remediation Objective	
CAS No.	Chemical Name	Class I (mg/L)	Class II (mg/L)
83-32-9	Acenaphthene	0.42	2.1
67-64-1	Acetone	0.7	0.7
15972-60-8	Alachlor	0.002°	0.01°
116-06-3	Aldicarb	0.003°	0.015°
309-00-2	Aldrin	0.00004ª	0.0002
120-12-7	Anthracene	2.1	10.5
1912-24-9	Atrazine	0.003°	0.015°
71-43-2	Benzene	0.005°	0.025°
56-55-3	Benzo(a)anthracene	0.00013°	0.00065
205-99-2	Benzo(b)fluoranthene	0.00018ª	0.0009
207-08-9	Benzo(k)fluroanthene	0.00017ª	0.00085
50-32-8	Benzo(a)pyrene	0.0002ª.c	0.002°
111-44-4	Bis(2-chloroethyl)ether	0.01*	0.01
117-81-7	Bis(2-ethylhexyl)phthalate	0.006 ^{a.c}	0.06°
75-27-4	Bromodichloromethane (Dichlorobromomethane)	0.00002ª	0.00002
75-25-2	Bromoform	0.0002°	0.0002
71-36-3	Butanol	0.7	0.7
85-68-7	Butyl benzyl phthalate	1.4	7.0
86-7 4-8	Carbazol e		
1563-66-2	Carbofuran	0.04 ^c	0.2°
75-15-0	Carbon disulfide	0.7	3.5
56-23-5	Carbon tetrachloride	0.005°	0.025°
57-74-9	Chlordane	0.002°	0.01°

		Groundwater Remediation Objective	
CAS No.	Chemical Name	Class I (mg/L)	Class II (mg/L)
108-90-7	Chlorobenzene (Monochlorobenzene)	0.1°	0.5°
124-48-1	Chlorodibromomethane (Dibromochloromethane)	0.14	0.14
67-66-3	Chloroform	0.00002ª	0.0001
218-01-9	Chrysene	0.0015a	0.0075
94-75-7	2,4-D	0.07°	0.35°
75-99-0	Dalapon	0.2°	2.0°
72-54-8	DDD	0.00011	0.00055
72-55-9	DDE	0.00004ª	0.0002
50-29-3	DDT	0.00012ª	0.0006
53-70-3	Dibenzo(a, h)anthracene	0.0003*	0.0015
96-12-8	1,2-Dibromo-3-chloropropane	0.0002°	0.0002°
106-93-4	1,2-Dibromoethane (Ethylene dibromide)	0.00005*.c	0. 0005 °
84-74-2	Di-n-butyl phthalate	0.7	3.5
95-50-1	1,2-Dichlorobenzene (o - Dichlorobenzene)	0.6°	1.5°
106-46-7	1,4-Dichlorobenzene (p - Dichlorobenzene)	0.075°	0.375°
91- 94 -1	3,3'-Dichlorobenzidine	0.02ª	0.1
75-34-3	1,1-Dichloroethane	0.7	3.5
107-06-2	1,2-Dichloroethane (Ethylene dichloride)	0.005°	0.025°
75-35-4	1,1-Dichloroethylene ^b	0.007°	0.035°
156-59-2	cis-1,2-Dichloroethylene	0.07°	0.2°
156-60-5	trans-1,2-Dichloroethylene	0.1°	0.5°
78-87-5	1,2-Dichloropropane	0.005°	0.025°
542-75-6	1,3-Dichloropropene (1,3-Dichloropropylene, cis + trans)	0.001	0.005

		Groundwater Remediation Objective	
CAS No.	Chemical Name	Class I (mg/L)	Class II (mg/L)
60-57-1	Dieldrin	0.00002*	0.0001
84-66-2	Diethyl phthalate	5.6	5.6
121-14-2	2,4-Dinitrotoluene ^a	0.00002	0.00002
606-20-2	2,6-Dinitrotoluene	0.0001	0.0001
88-85-7	Dinoseb	0.007°	0.07°
117-84-0	Di-n-octyl phthalate	0.14	0.7
115-29-7	Endosulfan	0.042	0.21
145-73-3	Endothall	0.1°	0.1°
72-20-8	Endrin	0.002°	0.01°
100-41-4	Ethylbenzene	0.7°	1.0°
206-44-0	Fluoranthene	0.28	1.4
86-73-7	Fluorene	0.28	1.4
76-44-8	Heptachlor	0.0004°	0.002°
1024-57-3	Heptachlor epoxide	0.0002°	0.001°
118-74-1	Hexachlorobenzene	0.00006°	0.0003
319-84-6	alpha-HCH (alpha-BHC)	0.00003°	- 0.00015
58-89-9	gamma-HCH (Lindane)	0.0002°	0.001°
77-47-4	Hexachlorocyclopentadiene	0.05°	0. <i>5</i> °
67-72-1	Hexachloroethane	0.007	0.035
193-39-5	Indeno(1,2,3-c,d)pyrene	0.00043ª	0.00215
78-59-1	Isophorone	1.4	1.4
72-43-5	Methoxychlor	0.04°	0.2°
74-83-9	Methyl bromide (Bromomethane)	0.0098	0.049
75-09-2	Methylene chloride (Dichloromethane)	0.005°	0.05°
91-20-3	Naphthalene ²	0.025	0.039
98-95-3	Nitrobenzene ²	0.0035	0.0035

		Groundwater Remediation Objective	
CAS No.	Chemical Name	Class I (mg/L)	Class II (mg/L)
1918-02-1	Picloram	0.5°	5.0°
1336-36-3	Polychlorinated biphenyls (PCBs) ⁿ	0.0005°	0.0025°
129-00-0	Pyrene	0.21	1.05
122-34-9	Simazine	0.004°	0.04°
100-42-5	Styrene	0.1°	0.5°
93-72-1	2,4,5-TP (Silvex)	0.05°	0.25°
127-18-4	Tetrachloroethylene (Perchloroethylene)	0.005°	0.025°
108-88-3	Toluene	1.0°	2.5°
8001-35-2	Toxaphene	0.003°	0.015°
120-82-1	1,2,4-Trichlorobenzene	0.07°	0.7°
71-55-6	1,1,1-Trichloroethane ²	0.2°	1.0°
79-00-5	1,1,2-Trichloroethane	0.005°	0.05°
79-01-6	Trichloroethylene	0.005°	0.025°
108-05-4	Vinyl acetate	7.0	7.0
75-01-4	Vinyl chloride	0.002°	0.01°
1330-20-7	Xylenes (total)	10.0°	10.0°
	Ionizable Organics		
65-85-0	Benzoic Acid	28	28
106-47-8	4-Chloroaniline (p-Chloroaniline)	0.028	0.028
95-57-8	2-Chlorophenol	0.035	0.175
120-83-2	2,4-Dichlorophenol	0.021	0.021
105-67-9	2,4-Dimethylphenol	0.14	0.14
51-28-5	2,4-Dinitrophenol	0.014	0.014
95-48-7	2-Methylphenol (o - Cresol)	0.35	0.35
86-30-6	N-Nitrosodiphenylamine	0.01	0.05

		Groundwater Remediation Objective	
CAS No.	Chemical Name	Class I (mg/L)	Class II (mg/L)
621-64-7	N-Nitrosodi-n-propylamine	0.01	0.01
87-86-5	Pentachlorophenol	0.001 ^{a,c}	0.005°
108-95-2	Phenol	0.1°	0.1°
95-95-4	2,4,5-Trichlorophenol	0.7	3.5
88-06-2	2,4,6 Trichlorophenol	0.0064*	0.032
	Inorganics		
7440-36-0	Antimony	0.006°	0.024°
7440-38-2	Arsenic	0.05°	0.2°
7440-39-3	Barium	2.0°	2.0°
7440-41-7	Beryllium	0.004°	0.5°
7440-42-8	Boron	2.0°	2.0°
7440-43-9	Cadmium	0.005°	0.05°
16887-00-6	Chloride	200°	200°
7440-47-3	Chromium, total	0.1°	1.0°
18540-29-9	Chromium, ion, hexavalent		
7440-48-4	Cobalt	1.0°	1.0°
7440-50-8	Copper	0.65°	0.65°
57-12-5	Cyanide	0.2°	0.6°
7782-41-4	Fluoride	4.0°	4.0°
15438-31-0	Iron	5.0°	5.0°
7439-92-1	Lead	0.0075°	0.1°
7439-96-5	Manganese	0.15°	10.0°
7439-97-6	Mercury	0.002°	0.01°
7440-02-0	Nickel	0.1°	2.0°
14797-55-8	Nitrate as N	10.0°	100°
7782-49-2	Selenium	0.05°	0.05°
7440-22-4	Silver	0.05°	•
14808-79-8	Sulfate	400°	400°

		Groundwater Remediation Objective	
CAS No.	Chemical Name	Class I (mg/L)	Class II (mg/L)
7440-28-0	Thallium	0.002°	0.02°
7440-62-2	Vanadium ²	0.049	
7440-66-6	Zinc	5.0°	10°

Chemical Name and Groundwater Remediation Objective Notations

- The groundwater Health Advisory concentration is equal to ADL for carcinogens.
- Oral Reference Dose and/or Reference Concentration under review by USEPA. Listed values subject to change.
- Value listed is also the Groundwater Quality Standard for this chemical pursuant to 35 Ill. Adm. Code 620.410 for Class I Groundwater or 35 Ill. Adm. Code 620.420 for Class II Groundwater.

Appendix H

Analytical Results from IL EPA Collected Samples

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

		REC	EIVED
DATE:	05-28-97	, אוטל	0 5 1997
SUBJECT:	Review of Data Received for Review on May 20,	1997 IEPA	VDLPC
FROM:	Stephen L. Ostrodka, Chief (SR Superfund Technical Support Se	T-4J)	
TO:	Data User: <u>IEPA</u>		
We have re	eviewed the data by CADRE for t	he following ca	ase:
SITE NAME	Rust-Oleum (IL)		
CASE NUMBI	ER: <u>25410</u>	_ SDG NUMBER: I	MEAXG1
Number and	Type of Samples: 6 (Water)		
Sample Num	nbers: MEAXG1-5, 7		
L_oratory	r: <u>SWOK</u> Hr	s. for Review:	3+0.5
			t0.5

The anta are usable with the qualifications described in the attached NARRATIVE

L. FINKE lbest

CC: Cecilia Luckett Region 5 TPO Mail Code: SM-5J

Following are our findings:

Page 2 of 5

Case Number: 25410 SDG Number: MEAXG1 Site Name: RUST-OLEUM (IL) Laboratory: SWOK

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Six low level water samples, numbered MEAXG1-5 and 7 were collected on 04-15-97 and 04-16-97. The lab received the samples on 04-17-97 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using CLP SOW ILM04.0 analysis procedure.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using *MIDI Distillation* procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectrometric procedure.

Reviewed By: __ Date: _

5-27-97

Case Number :25410

Site Name: RUST-OLEUM (IL)

SDG Number: MEAXG1 Laboratory: SWOK

1. HOLDING TIME:

HOLDING TIME CRITERIA

INORGANICS

	Holdir	ng Time		pH
	Primary	Expanded	Primary	Expanded
Metals	180	0	2.0	0.0
Mercury	28	0	2.0	0.0
Cyanide	14	0	12.0	0.0

DC-286: The following inorganic metal samples did not meet pH criteria. Hits are flagged "J" and non-detects are flagged "UJ".

MEAXG7

DC-287: The following inorganic mercury samples did not meet pH criteria. Hits are flagged "J" and non-detects are flagged "UJ".

MEAXG7

2. CALIBRATIONS:

CALIBRATION CRITERIA

INORGANICS

Percent Recovery Limits

Cyanide 85.00 115.00 70.00 130.00 ICP 90.00 120.00 65.00 135.00

No problems were found for this qualification.

Reviewed By:

5-27-97

Case Number: 25410 SDG Number: MEAXG1 Site Name: RUST-OLEUM (IL) Laboratory: SWOK

3. BLANKS:

LABORATORY BLANKS CRITERIA

DC-284: The following inorganic samples are associated with blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration. Hits are qualified "J"; non-detects are acceptable.

Aluminum MEAXG7

Calcium MEAXG7

Sodium MEAXG7

Zinc MEAXG7

The following inorganic samples are associated with a field blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration. Hits are qualified "J"; non-detects are acceptable.

Aluminum MEAXG2

DC-338: During review of the following inorganic samples, the reported IDL/default CRDL value was used for cyanide.

MEAXG1, MEAXG2, MEAXG3, MEAXG4, MEAXG5, MEAXG7

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

MATRIX SPIKE CRITERIA

INORGANICS

Percent Recovery Limits

Upper 125.0
Lower 75.0
Extreme lower 30.0

No problems were found for this qualification.

Reviewed By: $\frac{3}{5-27-97}$

Page 5 of 5

5410 SDG Number: MEAXG1 T-OLEUM (IL) Laboratory: SWOK

No problems were found for the laboratory control sample.

5. LABORATORY AND FIELD DUPLICATE

No problems were found for this qualification.

6. ICP ANALYSIS

DC-294: The analyte concentration is high (>50 X the IDL) and serial dilution percent difference is not in control (>10%).

All associated data are qualified "J".

Sodium

MEAXG1, MEAXG2, MEAXG3, MEAXG4, MEAXG5 MEAXG7

7. GFAA ANALYSIS

No GFAA analysis was performed for this data set.

8. SAMPLE RESULTS

All data, except those qualified above, are acceptable.

Reviewed By: 5-27-97

CADRE Data Qualifier Sheet

<u>Qualifiers</u>	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The data are unusable. (The compound may or may not be present)

F	ILE NAME: MEAXG1 DATE:	05/23/97	TIME: 08:26
С	RITERIA FILE: FGDR194		
		DATA	
•	iginal	x	Qualified
	QUALIF	ICATIONS	PERFORMED
XXX	Quantitation Limit Percent Moisture Holding Time Calibrations Matrix Spikes IPC Internal Standards SMC/Surrogates System Performance Sample Cleanup	x x x x x x x	CRDL Standards ICS LCS Duplicates Furnace AA QC ICP Serial Dilutions Sample Results Verification Laboratory Blanks Field QC
	PR	INT NON-DI	ETECTS
ΧŢ	Yes		No
	PRINT	REJECTED	RESULTS
x	Yes	11	No

TAL QUALIFIED SPREADSHEET

Case No: 25410 SDG No: MEAXG1 Site: RUST-OLEUM (IL)

Laboratory: SOUTHWEST LABS OF OKLAHOMA

PAGE: 1

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER:	MEAXG1	-	MEAXG2		MEAXG3		MEAXG4	-	MEAXG5	
SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	Routine Sample Water/LOW		Routine Sample Water/LOW		Routine Sample Water/LOW		Routine Sample Water/LOW		Routine Sample Water/LOW	•
INORG		_								
Aluminum	1960		361	j	11700	ĺ	7280		1530	
Antimony	2.1		2.0	U	8.7		14.5	- I	2.0	
Arsenic	46.8	ļ	28.3		53.8		26.5		43.8	
Barium	436	1	329		1580		1100		307	
Beryllium	1.0	U	1.0	U	3.8		1.0	U	1.0	
Cadmium	1.0	U	1.0	U	1.0	U	1.2		1.0	
Calcium	41300		37900		123000		77100		131000	
Chromium	6.7		1.0		42.0		46.0		4.2	
Cobalt	3.8	İ	1.4		17.5	l	7.4		2.0	
Copper	30.8	-	9.6		188		192		44.4	
Iron	6460		2100		48000		36500		11700	
_ead	644	-	244		866		613		80.8	
Magnesium	42900	i	40300		38700	ļ	38000		33100	
1anganese	121		81.6		431		481		673	
Mercury	1.6	1	0.20	U	0.20	u	1.0		0.20	
lickel	9.4		3.6		77.1	ĺ	32.1		7.1	
Potassium	25500	- }	25000		15600	i	22400		18300	
Selenium	8.2		4.4		5.0		3.0	U	3.0	
Silver	1.0	U	1.0	U	5.8	į	3.6		1.0	
Sodium	45100	J	43900	J	41900	J,	70400	J	61000	
Thallium	3.8		2.0	U	10.0		7.2		4.7	
/anadium	9.3		2.1		42.2		16.6		4.3	
Zinc	198		66.7		857		1370		156	
Cyanide	4.0	U	4.0	Ų	4.0	U	4.0	U	4.0	

FILE NAME: MEAXG1 DATE: 05/23/97 TIME: 08:26 CADRE 2.3

Water units are reported in ug/L. Soil units are reported in mg/Kg.

Case No: 25410 SDG No: MEAXG1

TAL QUALIFIED SPREADSHEET
Site: RUST-OLEUM (IL) Laboratory: SOUTHWEST LABS OF OKLAHOMA

PAGE: 2

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER:	MEAXG5D	MEAXG5S	MEAXG7	
LE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	Duplicate Sample Water/LOW	Matrix Spike Water/LOW	Routine Sample Water/LOW	
INORG				
——— Aluminum	1480	3540	73.9 J	
Antimony	2.0 U	465	2.0 UJ	1
Arsenic	41.6	84.6	2.0 UJ	
Barium	316	2230	1.0 UJ	
Beryllium	1.0 U		1.0 UJ	
Cadmium	1.0 υ	46.2	1.0 UJ	1
Calcium	135000		202 J	
Chromium	4.2	184	1.0 UJ	ì
Cobalt	1.8	458	1.0 UJ	
Copper	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	289	1.0 UJ	}
Iron	12000	13100	13.3 J	
Lead	81.8	101	1.0 UJ	
Magnes i um	34000		40.0 J	
Manganese	690	1160	1.0 UJ	
Mercury	.0.20 U		0.20 UJ	
Nickel	6.8	461	1.0 UJ	
Potassium	18600		15.0 UJ	
Selenium	5.1	10.9	3.0 UJ	1
Silver	1.0 U	48.6	1.0 UJ	
Sodium	63900		76.6 J	}
Thallium	4.2	47.1	2.0 UJ	ŀ
Vanadium	4.6	466	1.0 UJ	
Zinc	159	632	1.7 J	
Cyanide	4.0 U	95.6	4.0 U	

units are reported in ug/L. soft units are reported in mg/Kg.

FILE NAME: MEAXG1 DATE: 05/23/97 TIME: 08:26 CADRE 2.3

		Page	_of
•			
;	SPKI		
;	DUP:		

QC EXCEPTION SUMMARY REPORT

CASE\SAS#1_25410

BITE: Rust-Cleum

MATRIX: water

WATER SAMPLE

DATA SET:

LABI SWCK

CONCI Low

WATER SAMPLE

LAB QC / MEAXGI

REVIEWED BY: Rai L

SOIL SAMPLE SPK:

DATE: 5-23-97

SOIL SAMPLE DUP:

PORM #		PORM 3	PORM 3	PORM 3	FORM)	PORM 3	PURM 4	PORM 3	PORM 6	PORM 7	PORM 7	PORM 9	PORM 9	PORM 6	PORM 5	MALD	MELD	PMLD	RMA	СОММЕНТИ
BLB-(B)T	HOLD TIME	(MTAL CALIB	CONTIN	CALIB BLAME	PREP WATER BLANK	PERP SOIL BLANK	acs ar	\$01L #FE \$	BOIL DUP APD	ICII AQ	ICI BOIL	SERVAL BILUTION AQUBOUS	MAIAL DILUTION MOIL	AQ DUP	AQ STEE	MAK	DUP BPD	MANK	DUP RPD	
ALLEMPAN					16.83															
ANTIMONY																				
ARRESC																				
BARIUM																				
BESTLUM																				
CADMIN																				
CATCIAN					70,9															
CHROMIUM																				
COBALT																				
COPPER										,										
IDOM																				
LEAD																				
MACHERINA																				
MANDAMERS																				
MERCURY																				
MCERL																				
POTABULM																				
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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Name: SOUTHWEST_LABS_C	F_OK	Contract:	68-D5-01	36	
Lab Code: SWOK Case N	No.: 25410	SAS No.:		SDG No.:M	EAXG1
SOW No.: ILM04					
EPA Sample MEAXG1 MEAXG2 MEAXG3 MEAXG4 MEAXG5 MEAXG5 MEAXG5 MEAXG57		Lab Samp _29150.0 _29150.0 _29150.0 _29150.0 _29150.0 _29150.0 _29150.0	123455 S	US EPA NITTLE E36 S. CL-CHICAGO, ILL!	
Were ICP interelement corr	ections app	lied ?		Yes/No	YES
Were ICP background correc If yes - were raw dat application of backgr	tions appli a generated	ed ? before		Yes/No Yes/No	
Comments:	001100			200,100	
					
I certify that this data p conditions of the contract other than the conditions in this hardcopy data pack on floppy diskette has bee Manager's designee as ver Signature: May 13, 1997	, both tech detailed ab age and in	nically and ove. Relea the compute	for complese of the r-readable boratory Magnature Deborah J. Jason D. R	Leteness, f data conta e data subm Manager or e. Beree for	or ined itted the

EPA .	SAMPLE	NO
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'		MEAXG1
Lab Name: SOUTHWEST LABS OF OK	Contract: 68-D5-0136	

Lab Code: SWOK Case No.: 25410 SAS No.: SDG No.: MEAXG1
Matrix (soil/water): WATER Lab Sample ID: 29150.01
Level (low/med): LOW Date Received: 04/17/97 Matrix (soil/water): WATER Level (low/med): LOW__

% Solids: 0.0

)

Concentration Units (ug/L or mg/kg dry weight): UG/L_

					
CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	7.1	1960	-		P
	Aluminum_		B		
7440-36-0	Antimony_	2.1	B		P_
7440-38-2	Arsenic	46.8	_		P_
7440-39-3	Barium	436	_		P_
7440-41-7	Beryllium	1.0	ਹ		P_
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	41300			P_
7440-47-3	Chromium	6.7	$\overline{\mathtt{B}}$		$_{\rm P}^{-}$
7440-48-4	Cobalt	3.8	В		$ P^- $
7440-50-8	Copper	30.8			$ P^- $
7439-89-6	Iron	6460	_		$ \bar{P}^- $
7439-92-1	Lead	644	_		$ P^- $
7439-95-4		42900	_		$ P^- $
_	Magnesium	121			P
7439-96-5	Manganese		_		
7439-97-6	Mercury	1.6	=		[C <u>∆</u>
7440-02-0	Nickel	9.4	$\overline{\mathtt{B}}$		P_
7440-09-7	Potassium	25500	_		P_
7782-49-2	Selenium_	8.2	_	**	P_
7440-22-4	Silver	1.0	$\overline{\mathbf{U}}$		P_
7440-23-5	Sodium	45100		E	P_
7440-28-0	Thallium	3.8	$\overline{\mathtt{B}}$		P_
7440-62-2	Vanadium_	9.3	В		P_
7440-66-6	Zinc	198			P-:
	Cyanide	4.0	Ū		$C\overline{A}$
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EPA	SAMPLE	NO.G	102

	MEAXG2
Lab Name: SOUTHWEST LABS OF OK	Contract: 68-D5-0136
Lab Code: SWOK Case No.: 254	SAS No.: SDG No.: MEAXG1
Matrix (soil/water): WATER	Lab Sample ID: 29150.02
Level (low/med): LOW	Date Received: 04/17/97
% Solids:0.0	

Concentration Units (ug/L or mg/kg dry weight): UG/L_{\perp}

1	T				
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	361	-		P
7440-36-0	Antimony	$\begin{bmatrix}301 \\ 2.0 \end{bmatrix}$	ਹ		P-
7440-38-2	Arsenic	28.3	١٠		P
7440-38-2	Barium	329	-		p-
7440-39-3	Beryllium	1.0	ਹ		P
I - '	Cadmium	1.0	שו		P
7440-43-9	Calcium_	37900	U		P-
7440-70-2			=		P-
7440-47-3	Chromium_	1.0	В		P-
7440-48-4	Cobalt	1.4	В		
7440-50-8	Copper	9.6	В		P_
7439-89-6	Iron	2100	_		P_
7439-92-1	Lead	244	_		P_
7439-95-4	Magnesium	40300	_		P_
7439-96-5	Manganese	81.6	_		P_
7439-97-6	Mercury	0.20	ਹੋ		C∇
7440-02-0	Nickel	3.6	В		P_
7440-09-7	Potassium	25000	_		P_
7782-49-2	Selenium_	4.4	B	*	P_
7440-22-4	Silver	1.0	U		P_
7440-23-5	Sodium	43900		E	P_
7440-28-0	Thallium	2.0	℧		P
7440-62-2	Vanadium _	2.1	В		P
7440-66-6	Zinc	66.7			P_
	Cyanide	4.0	Ū		CĀ
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EPA	SAMPLE	NO.G	'C' -
ME	EAXG3		

Level (low/med): LOW

__0.0 % Solids:

Date Received: 04/17/97

Concentration Units (ug/L or mg/kg dry weight): UG/L_

1					
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	11700	-		$ \overline{P} $
7440-36-0	Antimony	8.7	B		$ \bar{P}^- $
7440-38-2	Arsenic	53.8			$ \bar{P}^- $
7440-39-3	Barium	1580	-		$ \bar{P}^- $
7440-41-7	Beryllium	3.8	Ħ		P ⁻
7440-43-9	Cadmium	1.0	U		P_
7440-70-2	Calcium	123000			$ P^- $
7440-47-3	Chromium	42.1	_		$ P^- $
7440-48-4	Cobalt	17.5	B		P-
7440-50-8	Copper	188	_		$ \bar{P}^- $
7439-89-6	Iron	48000	_		$ \bar{P}^- $
7439-92-1	Lead	866	-		$ P^- $
7439-95-4	Magnesium	38700	_		$ \bar{P}^- $
7439-96-5	Manganese	431	_		$ \bar{P}^- $
7439-97-6	Mercury	0.20	ਹ		CV
7440-02-0	Nickel	77.1			P
7440-09-7	Potassium	15600	_	· 	$ P^- $
7782-49-2	Selenium	5.0	1	*	$ P^- $
7440-22-4	Silver	5.8	\overline{B}		$ \bar{P}^- $
7440-23-5	Sodium	41900		E	P-
7440-28-0	Thallium	10.0	_		$ \bar{P}^- $
7440-62-2	Vanadium	42.2	$\overline{\mathtt{B}}$		$ P^- $
7440-66-6	Zinc	857			$_{\rm P}^{-}$
	Cyanide	4.0	Ū		$C\overline{A}$
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EPA	SAMPLE	NO.
		NO:G104

			MEAXG4
Lab Name: SOUTHWEST	LABS OF OK	Contract: 68-D5-0	
Lab Code: SWOK	Case No.: 25410	SAS No.:	SDG No.: MEAXG1
Matrix (soil/water):	WATER	· Lab S	ample ID: 29150.04
Level (low/med):	LOW	Date	Received: 04/17/97
% Solids:	0.0		

Concentration Units (ug/L or mg/kg dry weight): UG/L_

1			1	r	
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	7280	-		P
7440-36-0	Antimony	14.5	B		$_{\rm P}^{-}$
7440-38-2	Arsenic -	26.5			P_
7440-39-3	Barium	1100	-		$ P^{-} $
7440-41-7	Beryllium	1.0	ਹ		P_
7440-43-9	Cadmium	1.2	В		P
7440-70-2	Calcium_	77100	i		P_
7440-47-3	Chromium	46.0			P_
7440-48-4	Cobalt	7.4	B		P_
7440-50-8	Copper	192	_		P_
7439-89-6	Iron	36500			P_
7439-92-1	Lead	613	_		P_
7439-95-4	Magnesium	38000	_		P_
7439-96-5	Manganese	481			P_
7439-97-6	Mercury	1.0			C∇
7440-02-0	Nickel	32.1	B		P_
7440-09-7	Potassium	22400	_		P_
7782-49-2	Selenium_	3.0	$\overline{\mathtt{U}}$	*_	P_
7440-22-4	Silver	3.6	В		P_
7440-23-5	Sodium	70400	_	E	P_
7440-28-0	Thallium_	7.2	В		P_
7440-62-2	Vanadium_	16.6	В		P_
7440-66-6	Zinc	1370	_		P
	Cyanide	4.0	Ū		CĀ
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Color Before: Color After:	BROWN	Clarity Before: Clarity After:	CLOUDY CLEAR_	Texture:	
Comments:					_
		FORM I - IN		TLM02	_ _

EPA	SAMPLE	NO.C	0
ME	EAXG5		

Matrix (soil/water): WATER Level (low/med): LOW

Lab Sample ID: 29150.05 Date Received: 04/17/97

% Solids: ___0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

				T	Τ Ι
CAS No.	Analyte	Concentration	C	Q	М
7429-90-5	Aluminum	1530	-		$\left {P} \right $
7440-36-0	Antimony	2.0	₩.		P_
7440-38-2	Arsenic	${4}3.8$			P^-
7440-39-3	Barium —	307	-		$ P^- $
7440-41-7	Beryllium	1.0	Ū		P
7440-43-9	Cadmium	1.0	U		P_
7440-70-2	Calcium	131000	_ '		P_
7440-47-3	Chromium_	4.2	₽		P_
7440-48-4	Cobalt	2.0	В		P_
7440-50-8	Copper	44.4	_		P_
7439-89-6	Iron	11700	_		P_
7439-92-1	Lead	80.8	_		P_
7439-95-4	Magnesium	33100	_		P_
7439-96-5	Manganese	673	_		P_
7439-97-6	Mercury	0.20	Ū		CV
7440-02-0	Nickel	7.1	В		P_
7440-09-7	Potassium	18300	_		P_
7782-49-2	Selenium_	3.0	ਹ	*	P_
7440-22-4	Silver	1.0	U		P_
7440-23-5	Sodium	61000	_	E	P_
7440-28-0	Thallium_	4.7	B		P_
7440-62-2	Vanadium_	4.3	В		P_
7440-66-6	Zinc	156	=		P_
	Cyanide	4.0	บิ		$C\overline{A}$
			_		
			_		
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l			_		
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			_		l <u> </u>

		COLORLESS COLORLESS	Clarity Clarity	Before: After:	Texture: Artifacts	:
Commen	ts:					
			FORM	MI - IN	 	LM02.1

EPA SAMPLE NO.

				MEAXG7
Lab Name: SOUTHWEST_	LABS_OF OK _	Contract: 6	8-D5-0136	MEAAG7
Lab Code: SWOK	Case No.:	25410 SAS No.	:	SDG No.: MEAXG1
Matrix (soil/water):	WATER		Lab Sample	D: 29150.06
Level (low/med):	LOW		Date Recei	ived: 04/17/97
% Solids:	0.0			

Concentration Units (ug/L or mg/kg dry weight): $UG/L_{\underline{\ }}$

,		,			
CAS No.	Analyte	Concentration	С	Q	М
7429-90-5	Aluminum	73.9	$\overline{\mathtt{B}}$		$\left {P} \right $
7440-36-0	Antimony	2.0	บี	l ———	$ P^- $
7440-38-2		2.0	ŭ		P-
	Arsenic		ŭ	l ———	P-
7440-39-3	Barium	1.0	บ	ļ 	P-
7440-41-7	Beryllium	1.0	1 -		P
7440-43-9	Cadmium	1.0	Ū		
7440-70-2	Calcium	203	В		P_
7440-47-3	Chromium_	1.0	Ū		P_
7440-48-4	Cobalt	1.0	Ū		P_
7440-50-8	Copper	1.0	Ū		P_
7439-89-6	Iron	13.3	В	<u> </u>	P_
7439-92-1	Lead	1.0	U		P_
7439-95-4	Magnesium	40.0	В		P_
7439-96-5	Manganese	1.0	U		P_
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.0	U		P
7440-09-7	Potassium	15.0	Ū		P_
7782-49-2	Selenium	3.0	U	*	P_
7440-22-4	Silver	1.0	Ū		P_
7440-23-5	Sodium	76.6	В		$ P^- $
7440-28-0	Thallium	2.0	U		P^{-}
7440-62-2	Vanadium_	1.0	Ū		$ P^- $
7440-66-6	Zinc	1.7	В		$ P^- $
	Cyanide	4.0	Ū		CĀ
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			-		
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	l <u></u>	<u> </u>	_		l l

Color Before: Color After:	COLORLESS COLORLESS	Clarity Before: CLEAR_ Clarity After: CLEAR_	Texture:
Comments:			
		FORM I - IN	ILM02.1

3 BLANKS

Lab Name: SOUTHWEST_LABS_OF_OK____ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 25410 SAS No.: ____ SDG No.: MEAXG1

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte Aluminum	Initial Calib. Blank (ug/L)	C T u	Cont:	Bl C	ing Calib ank (ug/L 2	3	С	Prepa- ration Blank C	M
Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt 'pper on Lead Magnesium Manganese Mercury Nickel Potassium Selenium Silver Sodium Thallium Vanadium Zinc Cyanide	2.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 9.0 1.0 9.0 1.0 9.0 1.0 9.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0		2.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 9.0 1.0 9.0 1.0 9.0 1.0 3.0 1.0 15.0 3.0 1.0 1.0 4.0		-10.5 2.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 9.0 1.0 9.0 1.0 -19.6 3.0 -19.6 3.0 1.0 -19.6 4.0	 -14.1 2.0 2.0 1.0 1.0 1.0 5.0 1.0 1.0 9.0 1.0 9.0 1.0 0.2 1.0 -15.4 3.0 1.0 16.0 2.0 1.0 4.0	מממממממממממממממממממממממ	2.00 U 2.00 U 1.00 U 1.10 B 9.00 U 1.10 B 9.00 U 1.10 U 0.20 U 1.00 U 1.00 U 23.62 B 2.00 U 1.00 U 4.19 B 4.00 U	P

3 BLANKS

Lab	Name:	SOUTHWE	ST_LABS_OF_OK	Cont	tract:	68-D5-013	6		
Lab	Code:	SWOK	Case No.: 2	5410 SAS	No.:		SDG	No.:	MEAXG1
Prep	paratio	n Blank	Matrix (soil/wate	r):					
Drer	naratio	n Blank	Concentration Uni	te (ua/I. or	ma/ka	١.			

Analyte	Initial Calib. Blank (ug/L)	С	Cont.	uing Calib lank (ug/L 2	tion 3	С	Prepa- ration Blank C	М
Aluminum_Antimony_Arsenic_Barium_Beryllium Cadmium_Calcium_Chromium_Cobalt_oer_On_Lead_Magnesium Manganese Mercury_Nickel_Potassium Selenium_Silver_Sodium_Thallium_Vanadium_Zinc_Cyanide	16.0			16.0	 16.0			NR

5A SPIKE SAMPLE RECOVERY

EPA SAMPLE NO. ...

Lab Name: SOU	JTHWEST_LABS_OF_OK_		Contract:	68-D5-0136	MEAXG	5S
Lab Code: SWC Matrix:WAT	CER	25410	SAS No.:	SI Level (low	G No.: /med):	
% Solids for	Sample:0.0					

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample	С	Sample Result (SR)	С	Spike Added (SA)	%R	Q	М
Aluminum_	75-125_	3538.5700	_	1532.0660		2000.00	100.3	 -	<u>P_</u>
Antimony_	75-125_	465.0140_	_	2.0000	U	500.00	93.0	_	P_
Arsenic	75-125_	84.5710	_	43.7990	_	40.00	101.9	_	P_
Barium	75-125	2226.5940		307.1940	_	2000.00	96.0	_	P_
Beryllium	75-125_	52.0600	_	1.0000	Ū	50.00	104.1	_	P_
Cadmium Calcium	75-125_	46.1910	-	1.0000	ָּע	50.00	92.4	-	P_NR
Chromium	75-125	184.4300	-	4.1730	$\overline{\mathtt{B}}$	200.00	90.1	_	P
Cobalt -	75-125	458.3900	-	1.9640	В	500.00	91.3		P_
Copper	75-125	288.6740	-1	44.4160		250.00	97.7	_	p_
Iron —		13085.0500	-1	11729.9370	-	1000.00	135.5	_	P
rad l		101.0710	-	80.7570	-	20.00	101.6	_	P
gnesium			-		-			_	Nk
Manganese	75-125	1158.8600	-	673.0290	-	500.00	97.2	_	Р
Mercury	75-125	1.1200	-	0.2000	$\overline{\mathbf{U}}$	1.00	112.0	_	C⊽
Nickel'-	75-125	461.1320	-	7.1040	В	500.00	90.8	_	P
Potassium			-					_	NR
Selenium	75-125	10.8660	-	3.0000	ਹ	10.00	108.7	_	P
Silver	75-125	48.5710	- i	1.0000	U	50.00	97.1	-	P -
Sodium	_		-					_	NR
Thallium	75-125	47.0580	-	4.6970	$\overline{\mathtt{B}}$	50.00	84.7	_	P
Vanadium -	75-125	465.9000	-	4.3320		500.00	92.3	_	P_
Zinc	75-125	632.0510	_	156.0000		500.00	95.2	-	P-
Cyanide	75-125	95.6040	-[Ū	100.00	95.6	_	\overline{CA}
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Con	ments:								
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FORM V (Part 1) - IN

6 DUPLICATES

EPA SAMPLE NO.

			MEAXG5D
Lab Name:	SOUTHWEST_LABS_OF_OK	Contract: 68-D5-0136	

 Lab Code:
 SWOK_____
 Case No.:
 25410
 SAS No.:

 SDG No.:
 MEAXG1

 Matrix (soil/water):
 WATER
 Level (low/med):
 _LOW___

% Solids for Sample: __0.0 % Solids for Duplicate: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

	Control			
Analyte Aluminum Antimony Arsenic Barium	Limit	Sample (S) C 1532.0660 2.0000 Ū 43.7990 307.1940	Duplicate (D) C	RPD Q M 3.2 P 5.2 P 3.0 P P P P P P P
Beryllium Cadmium Calcium Chromium Cobalt		1.0000 U 1.0000 U 131418.0180 4.1730 B 1.9640 B	1.0000 U 1.0000 U 134787.3020 4.1650 B 1.8160 B	2.5 0.2 7.8
CopperIron Lead Magnesium Manganese Mercury	25.0_	44.4160 -	$ \begin{array}{r} $	3.7 P 2.3 P 1.3 P 2.7 P 2.7 P P P CV
Nickel_ Potassium Selenium_ Silver_ Sodium	5000.0_ 5.0_	7.1040 B 18299.4740 3.0000 Ū 1.0000 U 60954.4540	6.7660 B 18647.0150 - 5.0800 U 1.0000 U	4.9 1.9 200.0 * P P P P P
Thallium_ Vanadium_ Zinc_ Cyanide_		4.6970 B 4.3320 B 156.0000 U	4.1890 B 4.5460 B 158.7460 4.0000 U	11.4 PPP PCA

9 ICP SERIAL DILUTION

EPA SAMPLE NO.

MEAXG5L	
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Lab Name: SOUTHWEST_LABS_OF_OK____ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 25410 SAS No.: ____ SDG No.: MEAXG1

Matrix (soil/water): WATER

Level (low/med): LOW___

Concentration Units: ug/L

			
		Serial	%
	Initial Sample	Dilution	Differ-
Analyte	Result (I) C	Result (S) C	ence Q M
[<u> </u>
Aluminum_	1532.07	1501.78	2.0 P
Antimony	2.00 Ū	10.00 Ū	P_
Arsenic	43.80	39.64 B	9.5 P
Barium —	307.19	310.88 B	1.2 P
Beryllium	1.00	5.00 U	- _P -
Cadmium	1.00 U	5.00 0	
Calcium_	131418.02	131387.04	0.0 P
Chromium	4.17 B	5.00 0	100.0 P
Cobalt	1.96 B	5.00 U	100.0 P
Copper	44.42	46.69 B	5.1 P
Iron	11729.94	12038.22	2.6 P
Lead	80.76	83.51	$-\frac{2}{3} \cdot \frac{3}{4} - - \frac{1}{2} - $
Magnesium	33140.44	32921.66	0.7 - - P-
Manganese	673.03	690.55	$\frac{1}{2.6}$
Mercury			
Nickel	${7.10}$	7.93 B	11.7 - NK
Potassium	18299.47	19787.60 B	8.1- - P-
Selenium	$\frac{10299.47}{3.00} = \overline{U}$	15.00 U	
Silver	1.00 U	5.00 0	
	I		
Sodium	30477.23 4.70 B	35397.55 10.00 Ū	
Thallium_			
Vanadium_	T	6.02 B	39.0_ P_
Zinc	156.00	160.49	2.9P_
Cyanide			NR
		i _	
		-	
	·		

10
Instrument Detection Limits (Quarterly)

Lap	Name: SOUTHWEST_LABS_OF_OK	Contract:	68-D5-0136		
Lab	Code: SWOK Case No.: 25410	SAS No.:		SDG No.:	MEAXG1
ICP	ID Number: TJA ET2	Date:	04/16/97		
Flan	me AA ID Number :				
Furi	nace AA ID Number :				

	·		· · · · · · · · · · · · · · · · · · ·	·····	 ,
	Wave-	1			
	length	Back-	CRDL	IDL	
Analyte	(nm)	ground	(ug/L)	(ug/L)	M
					l
Aluminum_	308.22		200_	9.0	P
Antimony_	_206.83_		60_	2.0	P
Arsenic	_189.04_		10_	2.0	P
Barium	_493.41_		200	1.0	P
Beryllium	_313.04_		5_	1.0	P
Cadmium	_226.50_		5_	1.0	P
Calcium	_317.93_		5000	5.0	P
Chromium_	_267.72_		10_	1.0	P
Cobalt	_228.61_		50_	1.0	P
Copper	_324.75_		25_	1.0	P
Iron	_271.44_		100_	9.0	P
Lead	_220.35_		3_	1.0	P
Magnesium	_279.08_		5000	9.0	P
Manganese	_257.61_		15_	1.0	P
Mercury			0.2		NR_
Nickel	_231.60_		40_	1.0	P
Potassium	_766.49_		5000	<u>1</u> 5.0	P
Selenium_	_196.02_		5 <u>_</u>	3.0	P
Silver	_328.07_		10_	1.0	P
Sodium	_588.99_		5000_	<u>1</u> 6.0	P
Thallium_	_190.68_		10_	2.0	P
Vanadium_	292.40		50_	1.0	P
Zinc	_213.86_		20_	1.0	P
Cyanide			10_	. _	NR_
_ 					l
					
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Comments:			
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10 Instrument Detection Limits (Quarterly)

Lab Name: SOUTHWEST_LABS_OF_OK_Lab Code: SWOK Case No.: 25410 ICP ID Number:	Contract: SAS No.: Date:	68-D5-0136 04/07/97	SDG No.:	MEAXG1
Flame AA ID Number : PS200A				
Furnace AA ID Number :				

I		·	· · · · · · · · · · · · · · · · · · ·		_
_	Wave- length	Back-	CRDL	IDL_	
Analyte	(nm)	ground	(ug/L)	(ug/L)	M
Aluminum	·		200		NR
Antimony_			60_		NR_
Arsenic			10_		NR_
Barium			200		NR_
Beryllium			5_		NR_
Cadmium_			5_		NR_
Calcium Chromium			5000		NR_ NR
Cobalt Cobalt			10		NR_
Copper Copper			25		NR -
Iron			100-		NR -
Lead			3		NR_
Magnesium			5000		NR -
Manganese			15_		NR_
Mercury	_254.00_		0.2	0.2	CV_
Nickel			40_		NR_
Potassium			5000		NR_
Selenium_			5_		NR_
Silver			10_ 5000		NR_ NR
Thallium			5000_		NR_
Vanadium			50		NR-
Zinc					NR-
Cyanide_			10		NR -
-7					
ł				l	l

Comments:	

10 Instrument Detection Limits (Quarterly)

Law Name: SOUTHWEST_LABS_OF_OK	Contract:	68-D5-0136		
Lab Code: SWOK Case No.: 25410	SAS No.:		SDG No.:	MEAXG1
ICP ID Number:	Date:	04/14/97		
Flame AA ID Number : LACHAT				
Furnace AA ID Number :				

					
	Wave- length	Back-	CRDL	IDL	
Analyte	(nm)	ground	(ug/L)	(ug/L)	М
Aluminum			200_		NR_
Antimony_			60_		NR_
Arsenic			$\frac{10}{200}$		NR_
Barium Beryllium			²⁰⁰		NR_ NR
Cadmium			5_		NR -
Calcium			5000		NR ⁻
Chromium			10		NR_
Cobalt			50_		NR_
Copper			25_		NR_
Iron			100		NR_
Lead			5000		NR_ NR
Magnesium Manganese			15		NR-
Mercury			0.2		NR ⁻
Nickel			40		NR_
Potassium			5000_		NR_
Selenium_			5_		NR_
Silver			10_ 5000		NR_
Sodium Thallium			—— ⁵⁰⁰⁰ —		NR_ NR
Vanadium			50_		NR-
Zinc			20		NR-
Cyanide	578.00_		10	4.0	CA_

Comments:	_	 		
			<u>-</u>	

LEPA United States Contr	Environmental Protection Agency ract Laboratory Program	porganic Traffic Report A Chain of Custody Record (For Inorganic CLP Analyis)	Case No.
	2. Region No. Sampling Co.	(For Inorganic CLP Analyis) 4. Date Shipped Carrier	25410 6. Date Beceived Received by:
1. Matrix 2. Preservative (Enter	5 IEIA	4/16/97 Fed Fx	1/17/97
in Column A) in Column D) 1. Surface Water 1. HCl	Sampler (Name)	Airbill Number	Laboratory Contract Number 1Unit Price
2. Ground Water 2. HNO3 3. Leachate 3. NaOH	Sampler Signature	75 856 9 85 7 5 5. Ship To	48-05-0136 78.90 7. Transfer to: Date Received
4. Field QC 4. H ₂ SO ₄ 5. Soil/Sediment 5. K ₂ CR ₂ O ₇ 6. Oil (High only) 6. Ice only	3. Purpose Early Action Long Term	5. Ship to South Labor of Otherane	C
6. Oii (High only) 6. Ice only 7. Waste (High 7. Other (specify in Column D)	Lead PA FS	1700 Last Milyn, Suite Broke. Mirca, OK	Received by
8. Other (specify N. Not in Column A) preserved	PRP RI RA		Contract Number Price
CLP A B C	D E – RAS Analysis	F G	H I J K I
Sample Matrix Conc.: Sample Numbers (from Low Type: (from Box 1) Med Comp./	vativa n (v) ontv onlv	Regional Specific Station Tracking Number Location or Tag Numbers Identifier	Mo/Day/ Year/Time CLP Organic Initials Grample Sample No.
	Agricon Conduct. Conduct Condu		Collection Water Water Water American Miscolle Collection Miscolle Collection Water Am
menx66 2 6 6	2 X	-197557 6106	FBPM6
ME4X66 2 1 6	3 4 5	147558 6106	EBPm6
MEAX67 2 L G	7 X 5	-149559 F13	while a FROM OF HILL
MEAX672 L G		5-149560 FB	4/s/22 122 EBPMOTIN & last SAM
			ih 504
		·	4-25-9
, , , , , , , , , , , , , , , , , , , ,			
Shipment for Case Complete? (Y/N)	ample(s) to be Used for Laboratory Q	C Additional Sampler Signatures	Chain of Custody Seal Number(s)
,	DUI MY	CHAIN OF CUSTODY RECORD	1-113010-41300
	Date / Time Received by: (Signation	Relinquished by: (Signature)	Date / Time Received by: (Signature)
Relinquished by: (Signature)	Date / Time Received by: (Signal	Ature) Relinquished by: (Signature)	Date / Time Received by: (Signature)
V			
Relinquished by: (Signature)	Date / Time Received for Labora (Signature)	tory by: Date / Time Remarks	Is custody seal intact? (M) /none
DISTRIBUTION: Green - Region Copy	Pink - CLASS Conv		SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

White - Lab Copy for Return to Region

Yellow - Lab Copy for Return to SMO

EPA Form 9

SEE REVERSE FOR PURPOSE CODE DEFINITIONS

OF BA United States E	Environmental Protection Agency	Inorganic Traff	ic Report	Case No.	•
EPA Orniced States E	act Laboratory Program	& Chain of Custo (For Inorganic CL	ody Record P Analyis)	25410	
	2. Region No. Sampling Co.	4. Date Shipped Carrier		6. Date Received Received	ed by:
1. Matrix 2. Preservative (Enter	5 TEPA	4/11/67 Fee	Fx	- Efdled	- 417/97
in Column A) in Column D)	Sampler (Name)	Aifbill Number		Laboratory Contract Number	
1. Surface Water 1. HCl 2. Ground Water 2. HNO3	Mork Wagner	758569859	<	68-D5-0136	, \$78.90
3. Leachate 3. NaOH	Sampler Signature	5 Ship To		7. Transfer to:	Date Received
4. Field QC 4. H ₂ SO ₄ 5. Soil/Sediment 5. K ₂ CR ₂ O ₇	Sampler Signature	C 11 and 1 las of	f Offelione		
6. Oil (High only) 6. Ice only	3. Purpose* Early Action Long-Term	1700 Lant	Alberty Soute C	Received by	
7. Waste (High 7. Other (specify only) in Column D)	Lead PA FS	Biotron Aire	w. Ok	7.1000.100 by	
8. Other (specify N. Not	PRP RI RA	016142171116	14012	Contract Number	Price
in Column A) preserved	ST SI O&M FED ESI NPLD	l	•	Contract Number	Filce
CLP A B C	D E – RAS Analysis	F F	G G	H I I	J K
Sample Matrix Conc. Sample F	Preser- Low High	Regional Specific			ampler High Phases
(from Box 1) Med Comp./	vative (from Box 2) W W Box 2) W W Box 2	Tracking Number or Tag Numbers		/Time CLP Organic I mple Sample No.	nitials 9 9
labels) High Grab	vative (from Box 2) Other: Condect Level Price (NO 2 NO		Coll	ection	Solids Water- Miscible I Water- Immis. Li
		·		<u> </u>	
MEAXLI Z L	2 X 5	-149543			76
MEHX61 Z L G		-149544			W
MEAX62 2 1 (_ 1 1 1 1 2	-149545		7 1350 [BPMZ]	
MEAXLZ 2 LZ	3 X 5	-149546	6-102 4/15/	7 1350 EBPMZ D	7N
mEAX63 2, L 6	2 X/ 5	-1495 47		2 Kou EBPM3 7	
MEAX63 2 6	3 X 5	-149548	· · · · ·	1600 EBPM37	
minx64 2 1 6	2 X 5	-149549		1 1000 EBPMY 7	! ! !
MFAX64 2 1 G	3 X 5	-149550	6-104 4/16/91	1000 EBPM4 \$	MW .
MEAX65 2 L 6	2 X 5	-149551-53		1130 EBP m57	
mExx65 2 1. 6		-149554-56		2 1720 FRIPMS /	7/14
Shipment for Case Page Sa	ample(s) to be Used for Laboratory QC	Additional Sampler	Signatures	Chain of Custody Sea	I Number(s)
Complete? (Y/N)	EDAM MEAKE			49381 2	49382
		CHAIN OF CUSTODY RECO	RD		
Relinquished by: (Signature)	Date / Time Received by: (Signat	dure) Relinquished	by: (Signature)	Date / Time Received by	y: (Signature)
	6/11 1200				•
Refinquished by: (Signature)	Date / Time Received by: (Signat	ture) Relinquished	by: (Signature)	Date / Time Received by	y: (Signature)
					•
Relinquished by: (Signature)	Date / Time Received for Laborate	ory by: Date / Tir	ne Remarks Is cu	stody seal intact WN/none	
	(Signature)	4/760 n			
	- Minness C	11/1/0	150 intact		

DISTRIPUTION:

Green - Region Copy White - Lab Copy for Return to Region Pink - CLASS Copy Yellow - Lab Copy for Retur

МО

EPA Form 9110-1

PICHX61

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS SEE REVERSE FOR PURPOSE CODE DEFIN

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

ESD Central Regional Laboratory Data Tracking Form for Contract Samples

Data Set No:	CERCLIS	No:	14			
Case No: 25410	Site Na	me Locat	ion: _	Rust-c	Oleun	<u></u>
Contractor or EPA Lab:	WOK Da	ta User:		IEPA		
No. of Samples:	Date Sampled	or Data	Recei	ved: <u>6</u>	-20-	97
Have Chain-of-Custody record Have traffic reports or pack If no, are traffic report of of-custody record? Yes If no, which traffic report	king lists b r packing l No	een rece ist numb	eived? ers wr	Yes /	No the c	hain-
Are basic data forms in? Ye No of samples claimed:	es No. of sam	ples rec	-eived:	6		
Received by: Sypette					97	
Received by LSSS: June	te Burn	<u>eX</u> Da	ite:	5-20	97	
Review started: 5-23-97	Reviewer	Signatu	re:	3 Upre	<u> </u>	
Total time spent on review: Copied by: Mailed to user by: Mailed to user by:	unex 9	[Date: _	6-2-	97	23-97
DATA USER: Please fill in the blanks in Sylvia Griffen, Data	below and re	eturn th	is for	m to:		
Data received by:			Date: _			
Data review received by:		I	Date: _			
Inorganic Data Complete [Organic Data Complete [Dioxin Data Complete [SAS Data Complete [] Suitable] Suitable	for Int	ended ended	Purpose Purpose	\ [] \ []	if OK if OK
PROBLEMS: Please indicate uses.	reasons why	data a	ire not	t suitab	le for	Уол.
Received by Data Mgmt. Coord	dinator for	Files.	ata:			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

DATE:	May 21, 1997
SUBJECT:	Review of Data Received for Review on <u>May 14, 1997</u>
FROM:	Stephen L. Ostrodka, Chief (SRT-4J) for Itans Ostrodka Superfund Technical Support Section Method & Byrish 5/27/97
TO:	Data User: _IEPA
We have re	eviewed the data for the following case:
SITE NAME	: Rust-Oleum
CASE NUMBI	ER: 25410 SDG NUMBER: EBPMO
Number and	Type of Samples: <u>7 water samples</u>
Sample Nur	mbers: EBPM0-EBPM5, EBPM7
hagger	
Laboratory	y: Clayton Hrs. for Review: 18.5
Following The de	are our findings: ata are acceptable and useable with the aprientions described in the attached naviative.
arral	ipitations described in the attached navature.
	Michael & Byish

RECEIVED

JUN 0 5 1997

IEPA/DLPC

CC: Brian Freeman Region 5 TPO Mail Code: SM-5J

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Case Number: 25410 SDG Number: EBPM0 Site Name: Rust-Oleum (IL) Laboratory: Clayton

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Seven water samples, numbered EBPM0-EBPM5, EBPM7 were collected on 04/15-16/97. The lab received the samples on 04/17/97 in good condition. EBPM7 was analyzed for the VOA analytes only. EBPM0-EBPM5 were analyzed for the full list of organic analytes. All were analyzed according to CLP SOW OLMO3.0 3/90.

Prepared By: <u>Steffanie Tobin (Lockheed/ESAT)</u>

Date: <u>May 20, 1997</u>

Case Number : 25410 Site Name: Rust-Oleum (IL) SDG Number: EBPM0 Laboratory: Clayton

1 HOLDING TIME

No problems found for this qualification.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems found for this qualification.

3. CALIBRATION

The following volatile samples are associated with a continuing calibration whose corresponding initial calibration has percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "UJ".

Acetone, 1,2-Dichloroethene (total)
EBPM0, EBPM1, EBPM2, EBPM3, EBPM4, EBPM5
EBPM5MS, EBPM5MSD, EBPM7, VBLKBJ, VBLKBK, VHBLK

The following volatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

Chloromethane VBLKBK, VHBLK

Acetone

EBPMO, EBPM1, EBPM2, EBPM3, EBPM4, EBPM5 EBPM5MS, EBPM5MSD, EBPM7, VBLKBJ

The following semivolatile samples are associated with a continuing calibration whose corresponding initial calibration has percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "UJ".

Hexachlorocyclopentadiene
 EBPM0, EBPM1, EBPM2, EBPM3, EBPM4, EBPM5
 EBPM5MSD, SBLKW1

4. METHOD BLANKS

The following volatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Acetone

EBPM1, EBPM5, EBPM5MS, EBPM5MSD

The following semivolatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the

Prepared By: <u>Steffanie Tobin (Lockheed/ESAT)</u>
Date: <u>May 20, 1997</u>

Page 4 of 5

Case Number: 25410 SDG Number: EBPM0 Site Name: Rust-Oleum (IL) Laboratory: Clayton

associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Diethylphthalate
EBPM0, EBPM1, EBPM2, EBPM3, EBPM4, EBPM5
EBPM5MS, EBPM5MSD

Di-n-butylphthalate EBPM0, EBPM3, EBPM4, EBPM5, EBPM5MSD

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

No problems found for this qualification.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The following semivolatile matrix spike/matrix spike duplicate samples have percent recovery outside criteria. Hits are qualified "J" and non-detects are not flagged for the unspiked sample.

EBPM5MS, EBPM5MSD Pentachlorophenol

The following semivolatile matrix spike/matrix spike duplicate samples have percent recovery above the criteria but less than 100%. Hits and non-detects are not flagged for the unspiked sample.

EBPM5MSD 4-Nitrophenol

7. FIELD BLANK AND FIELD DUPLICATE

Sample EBPMO is a field blank and Sample EBPM7 is a trip blank. The field blank and trip blank are clean.

8. INTERNAL STANDARDS

No problems found for this qualification.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all VOA, SVOA, and Pesticide/PCB compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following volatile samples have analyte concentrations below to quantitation limit (CRQL). All results below the CRQL are qualified

Prepared By: <u>Steffanie Tobin (Lockheed/ESAT)</u>

Date: May 20, 1997

Case Number: 25410 Site Name: Rust-Oleum (IL) SDG Number: EBPM0 Laboratory: Clayton

"J".

VBLKBJ, VBLKBK, VHBLK
Acetone

The following semivolatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

EBPM3

bis(2-Ethylhexyl)phthalate

EBPM4

Naphthalene, Phenanthrene, Fluoranthene, Pyrene, bis(2-Ethylhexyl)phthalate

EBPM5

Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene Indeno(1,2,3-cd)pyrene, Benzo(g,h,i)perylene

EBPM5MS

Fluoranthene

EBPM5MSD

bis(2-Ethylhexyl)phthalate

SBLKW1

Diethylphthalate, Di-n-butylphthalate

The following pesticide samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

EBPM5

delta-BHC, Aldrin

EBPM5MS

delta-BHC, Heptachlor epoxide

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance. The GC baseline for the pesticide analysis was acceptable.

12. ADDITIONAL INFORMATION

None.

Prepared By: Steffanie Tobin (Lockheed/ESAT)

Date: <u>May 20</u>, 1997_

CADRE Data Qualifier Sheet

<u>Qualifiers</u>	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The anlayte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present)
Н	Sample result is estimated and biased high.
L	Sample result is estimated and biased low.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

ESD Central Regional Laboratory Data Tracking Form for Contract Samples

Data Set No:	CERCLIS No: //
Case No: 25410	Site Name Location: Rust-Oleum
Contractor or EPA Lab: <u>Clayfo</u>	n Data User: 18PA
No. of Samples: Date	Sampled or Data Received: 5-14-97
of-custody record? Yes / N	lists been received? Yes No No Chain-
Are basic data forms in? Yes No of samples claimed: No	No
Received by: Jultu 1	Burnett Date: 5-14-97
Received by LSSS: Synthe	Burneybate: 5-14-97
Review started: $5-15-97$	Reviewer Signature: Steffanik K. Tobin +
	Date review completed: 5-22-3
Copied by: Tyntte Burn	Date: 6-3-97
Mailed to user by: A fuelle	
DATA USER: Please fill in the blanks belo Sylvia Griffen, Data mgmt	w and return this form to: . Coordinator, Region V, 5SCRL
Data received by:	Date:
Data review received by:	Date:
Organic Data Complete [] S Dioxin Data Complete [] S	uitable for Intended Purpose [] / if OK uitable for Intended Purpose [] / if OK uitable for Intended Purpose [] / if OK uitable for Intended Purpose [] / if OK
PROBLEMS: Please indicate reasuses.	sons why data are not suitable for your
Received by Data Mgmt. Coordina	tor for Files. Data:

TCL QUALIFIED SPREADSHEET Site: Rust-Oleum (IL) Case No: 25410 Laboratory: CLAYTON NOVI SDG No: EBPMO EBPM2 EBPM0 EBPM3 EPA SAMPLE NUMBER: EBPM1 EBPM4 REGIONAL SAMPLE NUMBER: G103 G101 G102 G104 'PLE LOCATION:PLE TYPE: Routine Sample Routine Sample Routine Sample Routine Sample Routine Sample Water/LOW MATRIX/ANALYSIS: Water/LOW Water/LOW Water/LOW Water/LOW DILUTION FACTOR: 1.0 1.0 1.0 1.0 1.0 PERCENT MOISTURE: VOA 10 Chloromethane 10 U U 10 U 10 U 10 U Bromomethane 10 υ 10 U 10 U 10 U 10 U 10 10 10 10 Vinvl Chloride 10 U U u u U Chloroethane 10 U 10 U 10 U 10 U 10 U 10 υ 10 10 10 Methylene Chloride υ U U 10 U 10 10 Acetone 10 UJ IJ 10 ŲJ ŲJ 10 IJ Carbon Disulfide 10 U 10 U 10 U 10 U 10 υ 1,1-Dichloroethene 10 10 10 U 10 IJ 10 U U IJ 1,1-Dichloroethane 10 U 10 U 10 11 10 u 10 U 1,2-Dichloroethene (total) 10 UJ 10 UJ 10 UJ 10 UJ 10 UJ 10 10 Chloroform 10 U U Ш 10 П 10 U 1,2-Dichloroethane 10 U 10 U 10 U 10 U 10 U 2-Butanone 10 10 10 U U U 10 u 10 U 1,1,1-Trichloroethane 10 U 10 U 10 U 10 U 10 U Carbon Tetrachloride 10 U 10 U 10 U 10 U 10 U Bromodichloromethane 10 U 10 U 10 U 10 U 10 U 1,2-Dichloropropane 10 U 10 10 10 U U U 10 U cis-1,3-Dichloropropene 10 10 U U 10 u 10 U 10 U Trichloroethene 10 U 10 U 10 U 10 U 10 U 10 Dibromochloromethane 10 10 U U U 10 П 10 U 1,1,2-Trichloroethane 10 U 10 U 10 U, 10 U 10 U Benzene 10 10 U 10 U U 15 10 trans-1,3-Dichloropropene 10 U 10 U 10 U 10 U 10 U Bromoform 10 U 10 U 10 U 10 U 10 U 4-Methyl-2-Pentanone 10 U 10 10 10 U U U 10 U 2-Hexanone 10 U 10 U 10 U 10 U 10 U trachloroethene 10 10 u 10 U U 10 U 10 U ,,2,2-Tetrachloroethane 10 U 10 U 10 U 10 U 10 U Toluene 10 U. 10 U 10 U 10 Ħ 10 u Chlorobenzene 10 U 10 U 10 U 10 U 10 U Ethylbenzene 10 U 10 u 10 U 10 10 U U

10 U

PAGE:

10 ປີ

10 U

Water units are reported in ug/L. Soil units are reported in ug/Kg.

FILE NAME: EBPMO DATE: 05/21/97 TIME: 10:57 CADRE 2.3

Styrene

Xylene (total)

F	ILE NAME: EBPMO DATE: 05/21	/97	TIME: 10:57
С	RITERIA FILE: REG5094		
	D	ATA	
	Original	x	Qualified
	QUALIFICATI	ONS	PERFORMED
X X X X X X	Quantitation Limit Percent Moisture Holding Time Calibrations Matrix Spikes IPC Internal Standards SMC/Surrogates System Performance Sample Cleanup	×	CRDL Standards ICS LCS Duplicates Furnace AA QC ICP Serial Dilutions Sample Results Verification Laboratory Blanks Field QC
	PRINT N	ON-D	ETECTS
x l	Yes		No
	PRINT REJE	CTED	RESULTS
x	Yes	11	No

TCL QUALIFIED SPREADSHEET Site: Rust-Oleum (IL) Case No: 25410 Laboratory: CLAYTON NOVI SDG No: EBPMO EBPM5MSD EBPM7 **VBLKBJ** EPA SAMPLE NUMBER: EBPM5 EBPM5MS REGIONAL SAMPLE NUMBER: G105 MPLE LOCATION: G105 G105 Method Blank IPLE TYPE: Routine Sample Matrix Spike Matrix Spike Dup Routine Sample MATRIX/ANALYSIS: Water/LOW Water/LOW Water/LOW Water/LOW Water/LOW 1.0 1.0 1.0 1.0 DILUTION FACTOR: 1.0 PERCENT MOISTURE: VOA 10 10 П 10 10 10 п u Chloromethane U 10 U 10 U 10 U 10 u 10 Bromomethane 10 п 10 U 10 U Vinyl Chloride 10 U Chloroethane 10 U U 10 U 10 U Methylene Chloride 10 U 10 3 10 U 10 U 10 U 10 UJ J Acetone 10 10 U 10 U U 10 10 U Carbon Disulfide U U 10 10 10 U 69 71 11 1,1-Dichloroethene u 10 U 10 U 10 U 10 U 10 1,1-Dichloroethane 10 10 UJ UJ 10 UJ 10 UJ 10 UJ 1,2-Dichloroethene (total) 10 10 U 10 U 10 U 10 U u Chloroform 10 U 10 U 10 U 10 U 1,2-Dichloroethane 10 U 10 10 υ 10 υ 10 U 10 U U 2-Butanone 10 U 10 U 10 U 10 U 10 U 1,1,1-Trichloroethane 10 U 10 10 U 10 U 10 U П Carbon Tetrachloride 10 U 10 U 10 U 10 U 10 U Bromodichloromethane 10 10 U 10 П u 10 U 1,2-Dichloropropane 10 U 10 U cis-1.3-Dichloropropene 10 U 10 U 10 u 10 U U 56 10 U 10 U 55 Trichloroethene 10 10 10 U 11 10 U 10 U 10 U Dibromochloromethane U 10 U 10 U 10 U 10 U 10 1,1,2-Trichloroethane 10 10 U U 59 62 Benzene 10 U 10 U υ 10 U 10 U 10 U trans-1,3-Dichloropropene 10 10 10 υ 10 U 10 U ${\tt Bromoform}$ 10 U U 10 U 4-Methyl-2-Pentanone 10 10 U 10 U 10 U 11 U 10 U 10 U u 10 U 10 10 2-Hexanone 10 10 U 11 10 U 10 U 10 U trachloroethene U 10 U 10 U ,2,2-Tetrachloroethane Toluene 10 U 10 U 10 10 10 U U 57 58 10 U 54 55 10 U 10 U 10 U Chlorobenzene 10 10 U 10 U U Ethylbenzene 10 U 10 11 10 U 10 10 U 10 U 10 U υ Styrene 10 U 10 U u 10 υ 10 Xylene (total) 10 υ

PAGE:

Water units are reported in ug/L. Soil units are reported in ug/Kg.

FILE NAME: EBPMO DATE: 05/21/97 TIME: 10:57 CADRE 2.3

		TCL QUALIFIED S	PREADS			
Case No: 25410					Rust-Oleum (IL)	
SDG No: EBPMO				Laboratory: (CLAYTON NOVI	
EPA SAMPLE NUMBER:	VBLKBK	VHBLK				
REGIONAL SAMPLE NUMBER:					1	
SAMPLE LOCATION:						
SAMPLE TYPE:	Method Blank	Storage Blank	: 1			
MATRIX/ANALYSIS:	Water/LOW	Water/LOW				
DILUTION FACTOR:	1.0	1.0				
PERCENT MOISTURE:						
			-			
————						
Chloromethane	10 U					
Bromomethane		10				
Vinyl Chloride		10				
Chloroethane		10 اد	1			
Methylene Chloride		10				
Acetone		J 9	- (1
Carbon Disulfide		10				
1,1-Dichloroethene		با 10				:
1,1-Dichloroethane	1.1	10	1.1			
1,2-Dichloroethene (total)	10 U					
Chloroform	10					· · · · · · · · · · · · · · · · · · ·
1,2-Dichloroethane	10					
2-Butanone		10	1			1
1,1,1-Trichloroethane Carbon Tetrachloride	10 1	. 1	-			
Bromodichloromethane	10					
1,2-Dichloropropane	10		- ,			
cis-1,3-Dichloropropene	10		-			
Trichloroethene	10		_			
Dibromochloromethane	10					
1,1,2-Trichloroethane	10 (1				
Benzene	10	i i	-			
trans-1,3-Dichloropropene	10 (. 1				
Bromoform	10	1				
4-Methyl-2-Pentanone	10					
2-Hexanone	10 (-			
Tetrachloroethene	10 1		-			
1,1,2,2-Tetrachloroethane	10 (-			
Toluene	10		_			
Chlorobenzene	10		_			
Ethylbenzene	10		Ū			
Styrene	10	10	U			
Xyĺene (total)	10	10	Ū			

PAGE: 3

Water units are reported in ug/L. Soil units are reported in ug/Kg.

FILE NAME: EBPMO DATE: 05/21/97 TIME: 10:57 CADRE 2.3

TCL QUALIFIED SPREADSHEET

Case No: 25410 SDG No: EBPMO Site: Rust-Oleum (IL) Laboratory: CLAYTON NOVI

PAGE: 4

EPA SAMPLE NUMBER:	EBPM0		EBPM1		EBPM2		ЕВРМЗ	EBPM4	
REGIONAL SAMPLE NUMBER:	ED		G101	1	G102		G103	G104	
"PLE LOCATION:	FB			- 1			Routine Sample	Routine Sample	_
PLE TYPE:	Routine Sample	ľ	Routine Sample	- t	Routine Sample		•	Water/LOW	_
ATRIX/ANALYSIS:	Water/LOW		Water/LOW	- [Water/LOW		Water/LOW 1.0	1.0	
ILUTION FACTOR:	1.0		1.0	1	1.0		1.0	1.0	
ERCENT MOISTURE:				_ .				·	
NA									
henol	10	U	10 U	- 1	10	U	10 L 10 L		
is(2-Chloroethyl)ether	10	U	10 U	- 1	10	U		1	
-Chlorophenol	10	U	10 L	- 1	10	U	10 L	1	
,3-Dichlorobenzene	10	U	10 L		10	U	10 L	1	
,4-Dichlorobenzene	10	U	10 U	- 1	10	U	10 L	\$	
,2-Dichlorobenzene	10	U	10 U		10 10	U	10 L 10 L		
-Methylphenol	10	U	10 L	- 1	10	U	10 1		
,2'-oxybis(1-Chloropropane)	10	U	10 L 10 L	- 1	10	U	10 1		
-Methylphenol	10	U		1	10	U	10 1		
-Nitroso-di-n-propylamine	10	U			10	U	10 1		
exachloroethane	10	U	10 L	٠.	10	U	10		
itrobenzene	10	U		ٔ	10	Ü	10 1		
sophorone Nitrophenol	10	U		ا	10	U	10		
,4-Dimethylphenol	10	U		از	10	u	10 1		
s(2-Chloroethoxy)methane	10	U	10 0	1	10	Ü	10 1		
4-Dichlorophenol	10	U	10 0		10	Ü	10 1		
2.4-Trichlorobenzene	10	U	10 0	- 1	10	Ü	10 1		
aphthalene	10	U	10 U	- 1	10	Ū	10 L	2	,
Chloroaniline	10	U	10 U	ار	10	U	10 L	10)
exachlorobutadiene	10	U	10 L	J į	10	U	10 L	10	}
Chloro-3-methylphenol	10	U	10 L	Į	10	U	10 L	10)
Methylnaphthalene	10	U,	10 L	j	10	U	10 ι	10)
exachlorocyclopentadiene	10	UJ	10 UJ	J	10	UJ	10 U.	10)
,4,6-Trichlorophenol	10	Ų	10 L	į	10	U	10 l	10)
4,5-Trichlorophenol	25	U:	25 L	J	25	U	25 l		
Chloronaphthalene	10	U	10 U	3	10	U	10 ι		
witroaniline	25	U	25 U	- 1	25	U	25 L		
methylphthalate	10	IJ	10 U	J	10	U	10 ι		
enaphthylene	10	U	10 U	J	10	U	10 i		
6-Dinitrotoluene	10	U,	10 U	J	10	U	10 L		
Nitroaniline	25	U	25 U	٠,	25	U	25 L	,	
enaphthene	10	U.	10 U	J	10	U	10 L		
4-Dinitrophenol	25	U	25 U		25	U	25 L		
Nitrophenol	25	U	25 U		25	U	25 L		
ibenzofuran	10	U	10 U		10	U	10 L		
4-Dinitrotoluene	10	U	10 U		10	U	10 L		
ethylphthalate	10	U	10 L	- 1	10	U	10 L		
·Chlorophenyl-phenylether	10	U	10 L	- 1	10	U	10 L	T. Control of the Con	
luorene Nitroppiline	10	U	10 L	ار	10 25	U	10 L 25 L		
Nitroaniline	25 25	U		از	25 25	U	25 1	1	
,6-Dinitro-2-methylphenol Nitrosodiphenylamine (1)	25 10	U) -	10	U	10	1	
·Bromophenyl-phenylether	10	U		زار	10	U	10 1		
exachlorobenzene	10	U	10 0		10	Ü	10 1		
entachlorophenol	25	U	25 L	_	25	Ü	25 (
nenanthrene	10	ŭ			10	Ū	10		
nthracene	10	Ü	10 0		10	U	10		
rhazol e	10	Ū		J į	10	U	10 L	10	ı
-n-butvlohthalate	10	U	10 U	Į	10	U	10 L	10	ł
uoranthene	10	U	10 U	J	10	U	10 ι	0.8	į
rene	10	U,	10 U	Į	10	U	10 L	0.6	,
ıtylbenzylphthalate	10	U	10 U	ָן נ	10	U	10 l		
3'-Dichlorobenzidine	10	U	10 U	ָן נ	10	U	10 ι	i	
enzo(a)anthracene	10	U	10 U	J	10	U	10 ι	1	
ırysene	10	U	10 L	J	10	U	10 L		
s(2-Ethylhexyl)phthalate	. 10	U	10 L	J	10	U	1 .	1	
i-n-octylphthalate	· 10	U	10 L	J į	10	U	10 ι)
enzo(b)fluoranthene	. 10	U	10 L	J	10	U	10 L	10)
enzo(k)fluoranthene	10	U	10 U	J	10	U	10 L		
	10	U	10 U	J	10	U	10 L	1	
≥no(1,2,3-cd)pyrene	10	U	10 U	J	10	U	10 L	1	
rbenz(a,h)anthracene	10	U	10 U	J	10	U	10 L	1	
enzo(g,h,i)perylene	10	U	10 U	ונ	10	U	10 i	10	ı

FILE NAME: EBPMO DATE: 05/21/97 TIME: 10:57 CADRE 2.3

TCL QUALIFIED SPREADSHEET

Case No: 25410 SDG No: EBPMO Site: Rust-Oleum (IL) Laboratory: CLAYTON NOVI

SDG No: EBPMO			Laboratory: C	LAYTON NOVI	
EPA SAMPLE NUMBER:	EBPM5	EBPM5MS	lebpm5msD	SBLKW1	
REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR:	G105 Routine Sample Water/LOW	G105 Matrix Spike Water/LOW 1.0	G105 Matrix Spike Dup Water/LOW 1.0	Method Blank Water/LOW 1.0	
PERCENT MOISTURE:					
BNA					
Phenol	10 L	51	49	10 0	
bis(2-Chloroethyl)ether	10 U				
2-Chlorophenol	10 U		56	10 U	
1,3-Dichlorobenzene 1,4-Dichlorobenzene	10 U - 10 U		10 U 27	10 U 10 U	
1,2-Dichlorobenzene	10 0		1	The state of the s	
2-Methylphenol	10 U	ή 10 ι	i	· ·	
2,2'-oxybis(1-Chloropropane)	10 U	1	!		
4-Methylphenol	10 U 10 U		ı¦ 10 ∪ 40	יט 10 ט 10 ט	
N-Nitroso-di-n-propylamine Hexachloroethane	10 0				
Nitrobenzene	10 U				
Isophorone	10 U				
2-Nitrophenol	10 U 10 U				
2,4-Dimethylphenol bis(2-Chloroethoxy)methane	10 U	1			
2,4-Dichlorophenol	10 0	1			
1,2,4-Trichlorobenzene	10 U	i –	28	10 U	
Naphthalene	10 U				
4-Chloroaniline Hexachlorobutadiene	10 U 10 U			* *	1
4-Chloro-3-methylphenol	10 U		, 10 0 59	10 U	
2-Methylnaphthalene	10 ປ				
Hexachlorocyclopentadiene	10 UJ			10 UJ	
2,4,6-Trichlorophenol 2,4,5-Trichlorophenol	10 U 25 U				
2-Chloronaphthalene	10 U				
2-Nitroaniline	25 U				
Dimethylphthalate	10 บ 10 บ				
Acenaphthylene 2,6-Dinitrotoluene	10 ປ 10 ປ				
3-Nitroaniline	25 U				
Acenaphthene	10 U		42	10 U	
2,4-Dinitrophenol 4-Nitrophenol	25 U 25 U		25 U 63	25 U 25 U	
Dibenzofuran	10 U				
2,4-Dinitrotoluene	10 U		48	10 U	
Diethylphthalate	10 U			2 J	1
4-Chlorophenyl-phenylether Fluorene	10 U 10 U			10 U 10 U	
4-Nitroaniline	25 U				:
4,6-Dinitro-2-methylphenol	25 U			25 U	
N-Nitrosodiphenylamine (1)	10 U				
4-Bromophenyl-phenylether Hexachlorobenzene	10 U 10 U			10 U 10 U	1
Pentachlorophenol	25 U		120	25 U	
Phenanthrene	2 J				i
Anthracene	0.7 J				- !
Carbazole Di-n-butylphthalate	10 U 10 U				
Fluoranthene	3 J				
Pyrene	2 J	38	44	. 10 U	į
Butylbenzylphthalate 3,3'-Dichlorobenzidine	10 U 10 U				
Benzo(a)anthracene	10 U	10 U 10 U		10 U; 10 U	1
Chrysene	1 1	10 0		10 0	
bis(2-Ethylhexyl)phthalate	0.9 J	10 U	3 J	10 U	
Di-n-octylphthalate Benzo(b)fluoranthene	10 U	10 U 10 U		10 U	
Benzo(k)fluoranthene	· 1 J	10 U 10 U		10 U 10 U	
Benzo(a)pyrene	1 J	10 0		10 U	
Indeno(1,2,3-cd)pyrene	0.9 J	10 U		10 U	
Dibenz(a,h)anthracene Benzo(g,h,i)perylene	10 U	ļ		10 U 10 U	
Seuro(A'u' i)hei Areile	1 J	10 0	10 0	10 0	

FILE NAME: EBPMO DATE: 05/21/97 TIME: 10:57 CADRE 2.3

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TCL QUALIFIED SPREADSHEET Case No: 25410 Site: Rust-Oleum (IL) SDG No: EBPMO Laboratory: CLAYTON NOVI EPA SAMPLE NUMBER: EBPM0 EBPM1 EBPM2 EBPM3 EBPM4 REGIONAL SAMPLE NUMBER: G103 'PLE LOCATION: FB G101 G102 G104 PLE TYPE: Routine Sample Routine Sample Routine Sample Routine Sample Routine Sample MATRIX/ANALYSIS: Water/ Water/ Water/ Water/ Water/ DILUTION FACTOR: 1.0 1.0 1.0 1.0 1.0 PERCENT MOISTURE: alpha-BHC 0.05 0.05 0.05 0.05 0.05 U beta-BHC 0.05 0.05 0.05 u 0.05 U U 0.05 U u delta-BHC 0.05 Ų 0.05 U 0.05 U 0.05 U 0.05 U 0.05 gamma-BHC (Lindane) U 0.05 0.05 0.05 0.05 U U U u 0.05 0.05 Heptachlor IJ 0.05 U U 0.05 U 0.05 U Aldrin 0.05 U 0.05 0.05 U 0.05 U U 0.05 U Heptachlor epoxide 0.05 0.05 U 0.05 U 0.05 U U 0.05 U Endosulfan I 0.05 U 0.05 U 0.05 U 0.05 U 0.05 U 0.10 Dieldrin 0.10 U 0.10 U U 0.10 U u 0.10 4,4'-DDE 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U Endrin 0.10 0.10 0.10 U U 0.10 υ 0.10 U 0.10 Endosulfan II П 0.10 U 0.10 U 0.10 U 0.10 U 4,4'-DDD 0.10 U 0.10 U 0.10 U 0.10 υ 0.10 U Endosulfan sulfate 0.10 0.10 0.10 U 0.10 U Ш 0.10 U U 4,4'-DDT 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U Methoxychlor 0.50 U 0.50 U 0.50 U 0.50 U 0.50 Ų 0.10 Endrin ketone 0.10 u 0.10 U 0.10 U U 0.10 U Endrin aldehyde 0.10 U 0.10 U 0.10 U 0.10 U 0.10 U alpha-Chlordane 0.05 U 0.05 U 0.05 U 0.05 u П 0.05 gamma-Chlordane 0.05 U 0.05 U 0.05 U 0.05 U 0.05 U Toxaphene 5.0 5.0 U 5.0 U 5.0 U 5.0 U Aroclor-1016 1.0 u 1.0 11 1.0 u 1.0 U 1.0 U Aroctor-1221 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U Aroclor-1232 1.0 U 1.0 1.0 U 1.0 u U 1.0 U

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Water units are reported in ug/L. Soil units are reported in ug/Kg.

FILE NAME: EBPMO DATE: 05/21/97 TIME: 10:57 CADRE 2.3

Aroclor-1242

Aroclor-1248

clor-1254

⊯clor-1260

Case No: 25410		TCL QUALIFIE	D SPREA		Puct-Olaum (II)		
SDG No: EBPMO		Site: Rust-Oleum (!L) Laboratory: CLAYTON NOV!					
EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER:	EBPM5	EBPM5MS		EBPM5MSD	PBLKW1		
SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	G105 Routine Sample Water/ 1.0	G105 Matrix Spi Water/ 1.0	ke	G105 Matrix Spike Dup Water/ 1.0	Method Blank Water/ 1.0		
PES							
alpha-BHC	0.05	1	.05 U		0.05	u_{+}^{\dagger}	
beta-BHC	0.05	U 0	.05 U		0.05	U	
delta-BHC	0.02	J 0	.01 J	0.05	u 0.05	U¦	
gamma-BHC (Lindane)	0.05		.53	0.46	0.05	υ¦	
Heptachlor	0.05	U O	.51	0.48	0.05	U	
Aldrin	0.02		.42	0.49	0.05	υ	
Heptachlor epoxide	0.05	U 0	.03 J	0.05	U 0.05	U	
Endosulfan I	0.05	U 0	.05 U	0.05	U: 0.05	U	
Dieldrin	0.10	U	1.1	1.1	0.10	U	
4,4'-DDE	0.10	U 0	.10 U	0.10	U 0.10	U	
Endrin	0.10	U	1.1	1.2	0.10	U,	
Endosulfan II	0.10	U 0	.10 U	0.10	U 0.10	U	
4,4'-DDD	0.23	0	.18	0.12	0.10	U	
Endosulfan sulfate	0.10	U 0	.10 U	0.10	U 0.10	U	
4,4'-DDT	0.10	U 0	.96	1.0	0.10	U	
Methoxychlor	0.50	U 0	.50 U	0.50	U 0.50	U	
Endrin ketone	0.10	U 0	.10 U	0.10	U 0.10	U	
Endrin aldehyde	0.10	U 0	.10 U	0.10	U 0.10	U	
alpha-Chlordane	0.05	U 0	.05 U	0.05	U 0.05	U	
gamma-Chlordane	0.05	U 0	.05 U	0.05	J 0.05	U	
Toxaphene	5.0		5.0 U	5.0	5.0	U	
Aroclor-1016	1.0	U	1.0 U	1.0	J 1.0	U	
Aroclor-1221	2.0	U :	2.0 U	2.0	J 2.0	U	
Aroclor-1232	1.0	U	1.0 U	1.0	J 1.0	ប	
Aroclor-1242	1.0	υ	1.0 U	1.0	J 1.0	U	
Aroclor-1248	1.0	U	1.0 U	1.0	J 1.0	U	
Aroclor-1254	1.0	υ	1.0 U	1.0	J 1.0	U	
Aroclor-1260	1.0	็บ่	1.0 U	1.0	J 1.0	U	

Water units are reported in ug/L. Soil units are reported in ug/Kg.

FILE NAME: EBPMO DATE: 05/21/97 TIME: 10:57 CADRE 2.3

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TICS

Sample	TIC	Ret.Time	Conc.	Units	Flags
EBPM5	PROPANE, 2-METHOXY-2-METHYL-	5.50	10	UG/L	JN
V'	ACETALDEHYDE	2.59	16	UG/L	JN
SBLKW1	UNKNOWN UNKNOWN 1-PROPANOL, 2-(2-METHOXYPROP	3.20 4.68 22.94	5 4 3	UG/L UG/L UG/L	JN J
EBPM0	UNKNOWN	4.68	4	UG/L	J
EBPM1	UNKNOWN	4.68	4	UG/L	J
EBPM2	UNKNOWN	4.67	4	UG/L	J
EBPM3	7-OXABICYCLO 4.1.04HEPTANE DODECANOIC ACID 9-OCTADECENAMIDE, (Z)-	4.69 15.97 22.61	4 5 2	UG/L	JN JN
EBPM4	UNKNOWN CAMPHOR UNKNOWN AMIDE	4.68 8.52 22.60	4 7 3	-	J JN J
EBPM5					
	UNKNOWN PHENOL, 4-(1-METHYLETHYL)- (PHENOL, 4-(1-METHYLPROPYL)- PHENOL, 4-(1,1-DIMETHYLETHYL PHENOL, 4-(1,1-DIMETHYLETHYL OCTYL PHENOL ISOMER ETHANONE, 1-(2,4,6-TRIMETHYL	4.68 9.38 10.20 10.57 11.91 12.94	4 2 2 250 9 70 8	UG/L UG/L UG/L UG/L UG/L UG/L UG/L	7 M M M M M M M M M M M M M M M M M M M
	PHENOL, 2,4-BIS(1,1-DIMETHYL PHENOL, 2,5-BIS(1,1-DIMETHYL PHENOL, 3,5-BIS(1,1-DIMETHYL UNKNOWN UNKNOWN	15.33 15.50 15.78 15.97 16.08	6 6 3 4 6	UG/L UG/L UG/L UG/L UG/L	7 N N N N
	PHENOL, 2,6-BIS(1-METHYLPROP PHENOL, 4-(1,1,3,3-TETRAMETH UNKNOWN UNKNOWN TETRADECANOIC ACID	16.19 16.76 17.75 17.81 18.23	5 3 2 3 14	UG/L UG/L UG/L UG/L UG/L	J N J JN
	UNKNOWN UNKNOWN UNKNOWN UNKNOWN	18.50 19.33 19.89 20.67 20.83	4 5 24 8 4	UG/L UG/L UG/L UG/L	J JN J
	UNKNOWN 4,4'-DIISOPROPYL-2,2'-BISTHI UNKNOWN UNKNOWN UNKNOWN	21.24 21.45 22.44 22.58 22.69	8 3 3 3 3	UG/L UG/L UG/L UG/L UG/L	7 7 7 W
	UNKNOWN UNKNOWN	23.29 23.49 24.28	8 2 2	UG/L UG/L UG/L	٦ ٦

Missing Contents Error Report

SDG NO: CASE NO: EBPM0

25410

LABORATORY:

CLAYTON NOVI

AGENCY INPUT FILE: EBPMO.OAS

FIELD DESCRIPTION	CADRE KEY	
Analysis Time	Record Type 20 Line 2504 Format HH:MM	
Sulfur Cleanup	Record Type 27 Line 2904 Format RANGE	
Analysis Time Sulfur Cleanup	Record Type 20 Line 3465 Format HH:MM Record Type 27 Line 3865 Format RANGE	
Suttui Eteanup	Record Type 27 Line 3003 Format KANGL	
Filename: EBPMO	Date: 05/21/97 Time: 10:26 CADRE: 2.3	Page 1

Appendix F

US EPA Directives & Guidance for the Site Assessment Program